HOW DOES A 100% SINGLE-ROOM ENVIRONMENT INFLUENCE THE EXPERIENCE OF PERSON-CENTRED PRACTICE IN AN ACUTE- CARE SETTING?

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DEDICATION

This work is dedicated to my late parents Rose and Tommy, who instilled the ethic of hard work bringing its own rewards and a recognition of the importance of life-long learning.

ABSTRACT

1.0 BACKGROUND

Current building guidance for the NHS advocates 100% single-rooms inpatient environments. The research driving this has focused on patient safety and the reduction in healthcare-associated infections (HCAIs). There is little evidence of the impact of this design in adult acute care settings on the experience and delivery of person-centred care.

2.0 AIM AND OBJECTIVES

2.1 Research question

How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

2.2 Objectives

1. To explore, from the perspectives of patients/families, the experiences of care within a single-room, acute hospital environment.
2. To explore, from the perspectives of staff, the experiences of working within a single-room, acute hospital environment.
3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

3.0 DESIGN

An ethnographic study was undertaken in a district general hospital in Northern Ireland. Data collection included observations of practice (n=108.45 hours); patient interviews (n=9); and participatory reflective staff groups (n=3). A reflective journal was also kept by the researcher. Thematic analysis was used across all the data sources to identify the themes and subthemes.

4.0 RESULTS

Three main themes and ten subthemes became apparent:

- Limitations of the built environment, which included: *Provision of amenities; Environmental design solutions; Tension between ensuring privacy and maintaining safety*; *Working environment*
- Organising and delivering care, with subthemes of: *Promoting a hotel culture; Task focused care; Spending time*
- Nature of interactions, and the subthemes of: *Feeling isolated and vulnerable; Engaging in meaningful conversations; Opportunities to socialise*

5.0 CONTRIBUTION TO KNOWLEDGE

This work illustrates that changing the physical environment does have an impact on person-centred practice by:

- Providing a sharper focus of what constitutes a good experience of care

- Identifying that public expectations have been heightened about being treated as individuals
- Uncovering a sense of unease about who “owns” the space creating an additional barrier to delivering person-centred care

LIST OF ABBREVIATIONS AND ACRONYMNS

100% Single room environment - a ward where each patient has their own room with ensuite bathroom facilities.

Allied Health Professionals (AHPs) – a group of professionals (outside of nursing and medicine) who work with patients. This includes physiotherapists; speech therapists, dieticians; pharmacists.

CD – Controlled Drug

DOH – Department of Health

DHSSPS – Department of Health, Social Services and Public Safety

IPC – Infection Prevention and Control

IV – Intravenous

MMR - Medicines Management Room

NA – Nursing Assistants

NHS – National Health Service

NICE – National Institute for Clinical Excellence

NIPEC – Northern Ireland Practice and Education Council for Nursing and Midwifery

OoP - Observations of Practice

PhD – Doctor of Philosophy

PODs – Patient Own Drug Dispensers

PPE – Personal Protective Equipment. This includes gloves and aprons routinely. For working with patients with airborne infections, facemasks and respirators may also be required.

PRG – Participatory Reflective Groups

RN – Registered Nurse

UK – United Kingdom

WCCAT – Workplace Culture Critical Analysis Tool

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

The world of healthcare is constructed of socially complex groups, whose interactions impact on each other and the individuals within that environment (Williams 2003. p.3). Within this society, there is an increasing recognition of the role culture plays in the delivery of patient care and patient outcomes. There is also a recognition of the role culture plays in managing change and the difficulty of implementing change within a hierarchical structure with complex rules and systems (Seedhouse 2017, p.14). This thesis aims to understand the impact of the environment on the delivery and experience of person-centred practice. It centers on the experience of staff and patients in a new built environment, to explore the factors which enhance or challenge those interactions. How the culture impacts on this type of organisational change will also be included, to extrapolate the external factors which impact on person-centred practice. This chapter begins with a reflection of my background and personal reasons for undertaking a PhD. The context for the research will be discussed, with reference to policy drivers relating to building design. The development of person-centred practice will also be reviewed. Finally, an overview of the thesis chapters that follow will be provided.

1.2 CONTEXT FOR THE RESEARCH

1.2.1 The Physical Environment

To appreciate the impact of the environment on person-centred practice, understanding the culture of engagement and participation within the environment is key. Person-centred practice does not occur in a vacuum, and changes to the physical environment as a result of policy directives (macro context) can influence the care environment within organisations (micro context). The care environment is increasingly being recognised as having particular importance for patient and staff experience. One component of the Person-Centred Practice Framework **(Figure 1)** underpinning this study, is the environment in which care is delivered. This includes concepts such as power sharing; skill mix, leadership and shared decision-making, applying to all care environments (McCance and McCormack 2017, p.47).

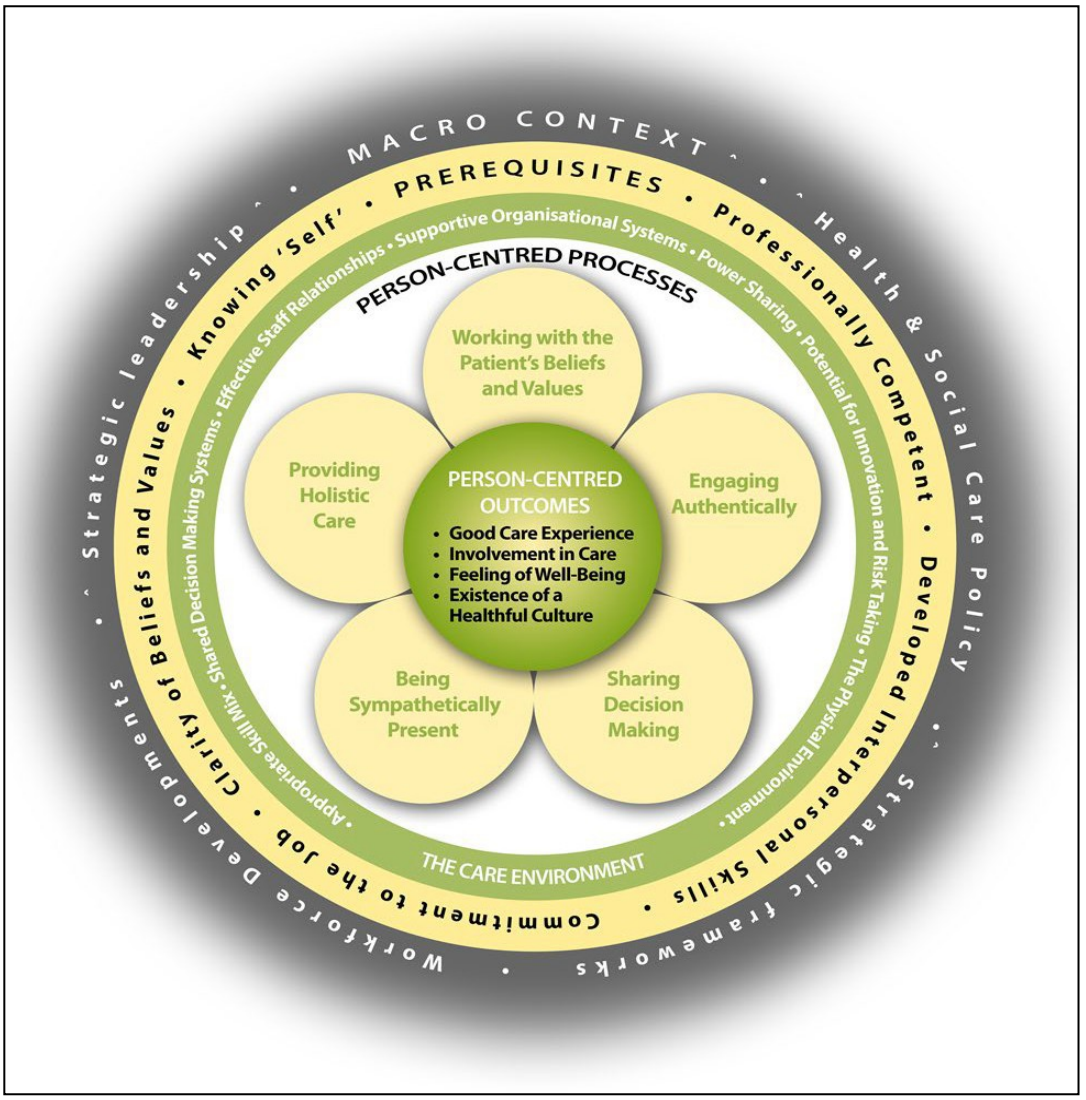

Figure 1 Person-centred Practice Framework (McCormack and McCance 2017)

Much of the research relating to the physical environment has focused on patient safety and the reduction in healthcare-associated infections (HCAIs) (Bonizzoli *et al*. 2011; Ellison *et al.* 2014; Fairhall *et al*. 2016)). More recently, there has been an increased focus on patient experience, reflecting the design of rooms (Patterson *et al*. 2019); and specific group experiences (Anäker *et al.* 2019). There is also emerging evidence of staff experiences including meeting the needs of Allied Health Professionals (Evans *et al*. 2018); and the impact of the physical layout on nursing care

(Xuan *et al.* 2019). The hospital environment and design are reported to have a direct impact on patients' feelings of well-being and therefore their experiences of care (Suess and Mody 2017). This study does not refer particularly to the single-room environment, but other studies have specifically explored this design, given patients' concerns about privacy and dignity (Brauner 2017).

To explore authentic person-centredness in an organisation, it is also necessary to consider the impact of the environment on staff and how that relates to the care experienced by patients and patient safety. Prior to 2015, much of the work about staff experiences in single-room environments took place in critical care environments (Cone *et al.* 2010; (Bosch *et al*. 2012). Fabry (2015) found the implementation of new practices was commensurate with how much engagement and preparation staff had had prior to implementation. More recently, Copeland and Chambers (2017) explored the additional energy needed by nurses in a single-room environment and what design measures could improve their experience. This demonstrates some potential for understanding more about the reality of practice for all those in the healthcare environment. Chapter 2 will explore the literature on this subject in more detail.

1.2.2 Person-centred Practice

Person-centred practice and person-centred care are often used interchangeably, despite having a different focus. Person-centred care is

primarily about care being delivered to patients/clients, while person-centred practice has a much broader significance. The latter has been defined as:

> "…*an approach to practice established through the formation and fostering of healthful relationships between all care providers, service users and others significant to them in their lives. It is underpinned by values of respect for persons, individual right to self-determination, mutual respect and understanding. It is enabled by cultures of empowerment that foster continuous approaches to practice development.*" McCormack and McCance (2017, p.3)

The aspiration to deliver person-centred practice is evident in global health and social care policy and strategy (World Health Organization 2007; DHSSPS 2011; Ministry of Health and Long-term Care 2012; Hennelly and O'Shea 2019). This drive has resulted in an increasing body of work in various programmes of care, as described in **Section 2.2.3**. Practitioners have also used the principles of person-centred practice to explore organisational leadership (Dewar and Cook 2014); how the delivery of care is documented (NIPEC 2016) and to inform reflection and practice development processes (Christie and Camp 2014). This provides a base from which to examine espoused beliefs and values, and their impact on care delivery.

Supporting healthcare staff to deliver collaborative, respectful care, incorporating shared decision-making (McCormack *et al*. 2010; Dewi *et al*. 2014), is also reflected in the concept of a therapeutic relationship, described by Doherty and Thompson (2014). This includes the concept of empathy, through active listening and understanding of what is meaningful to the patient. An alternative construct of *sympathetic presence* is described by McCance and McCormack (2017, p.57) in the Person-centred Practice Framework **(Figure 1)**. These authors argue that it is not possible to be truly empathetic, given that everyone's experience is different. They propose that being sympathetically present, represents a clearer exposition of being with a patient and recognising the uniqueness of that individual's experience. Similarly, the importance of nurses 'knowing' patients as persons through acts of compassionate care is, according to Sharp *et al.* (2016), an essential component of person-centred practice. Recent NHS guidance (NICE 2012) also reflects this way of thinking, specifying the person-centred principles underpinning patient experiences of adult NHS services. The principles are specified as communication, information, shared decision-making, and education; all found within the domains and constructs of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. This version of the Framework has been selected for the current study because it was designed to be used in a multidisciplinary context to include different staff groups. Previous iterations (McCormack and McCance 2006; McCormack and McCance 2010) have focused on nursing, but the current study has a broader focus, to understand the experiences of the range of staff interacting with patients in this new environment.

Alongside the environment, the culture in which care happens influences the development and sustainability of person-centred practice. There is a significant body of evidence relating to organisational culture, applicable to the health landscape, to reflect its impact on patients and staff experience. Authors, such as Schein (2017) and Edmondson (2019), have explored the importance of leadership in creating safe, strong organisational cultures, which enable and encourage partnerships through psychological safety. Cochrane *et al.* (2019) explore the importance of a compassionate culture, while Dixon-Woods *et al*. (2014) had previously undertaken a major study in the NHS to understand the connectivity between culture and behaviour, and quality and safety. Person-centred practice may be shown to influence the sustainability of changes to organisational culture according to Wolf *et al*. (2017). These authors do conclude however, that change is only sustainable if there is very clear engagement throughout the implementation phase.

Person-centredness is predicated on social beings, being defined by the relationship with others and the world (Wilkins 2012). The notion of human connectedness as a key element to support shared decision-making is also suggested by Thórarinsdóttir and Kristjánsson (2014). In a single-room environment, human connectedness can appear more disjointed, suggesting an impact on communication and engagement. Scales *et al.* (2017) confirmed that when staff feel disempowered, they are less likely to empower their patients. While the aforementioned study was focused on

dementia care, the findings suggest applicability to how changes in the physical environment might impact on patient experience.

1.3 PERSONAL CONTEXT

Dubnewick *et al.* (2018) assert that the process of reflexivity supports transparency when it begins with an autobiographical review of self. Situating the researcher as a potential influencing factor within the context of the study encourages the reader to take the researcher's interpretation seriously, according to Lichterman (2017). While the use of reflexivity is unlikely to uncover all an individual's assumptions and prejudices, Hiller and Vears (2016) contend it highlights potential areas of conflicts, which if shared, can bring further assumptions to light.

I was a nurse for 36 years, with a background in paediatrics and for the last ten years of my career as a manager. For many years, I worked as a nurse specialist and was privileged to engage deeply and meaningfully with a large number of families whose children had very specific medical needs (Kelly 2008, p.226). Being a skilled helper, as described by Dickson (2017, p.238), I felt I was able to engage authentically with these families, working with some families from the birth of their child until their transition to adult services. Although I was based in an acute hospital, I spent much of my time visiting families at home, in local hospital or primary care settings and schools. I was able to appreciate and understand the differing beliefs and values held by both the families and the other professionals working with

them. At times this was challenging, as I strove to align those beliefs and values with my own beliefs of autonomy, responsibility and engagement.

When I moved into a management role, I worked within a different health structure, albeit still part of the NHS. This required me to 'unknow' my previous knowledge of systems and process and become familiar with new ways of working. Remaining within a paediatric setting, I was reassured to be part of a person-centred culture, although one that could at times be challenging. As a manager, I found myself trying to meet competing priorities, which I was aware made staff feel uncomfortable and sometimes fearful. By situating myself within the clinical area, I was able to provide a visible presence to staff and be available to them when they had concerns. Staff were encouraged to challenge decisions and contribute to developments within the service. My experience of managing a major refurbishment gave me an insight into the challenges faced by the operational leaders and the clinical staff in the new single-room environment I studied as part of this PhD. Ko *et al.* (2019) found that ethical decision-making by nurses was based on multiple value bases. This illustrated to me how my personal values and my nursing values have influenced how I understood the system I worked in, and how they might influence my thinking during this study.

The inclusion of the macro context in the 2017 version of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**,

directed me to reflect on my previous experiences. While I was aware of how impactful external influences, such as policy drivers and strategic goals had been during my career, I had not previously considered their full impact on the care I delivered to patients or staff. I had been clear in my own mind about what being a good manager should mean, but it was not until I became one myself and was subject to the myriad of external pressures that existed, that I understood the connectivity of the macro context to the experience and delivery of care.

Strategic leadership necessitates engaging in shared decision-making with numerous stakeholders from government ministers to clinical staff. Archer *et al.* (2018) found regular, accurate information sharing was required to ensure everyone is engaged in the multiple processes across healthcare systems As I undertook this study, I often paused to reflect on occasions where information sharing and respect had been clearly evident during my work with staff, and equally importantly, when it had not. It was sometimes difficult to explain to staff the reasons for high level decisions, and the preceding lack of consultation. The lack of engagement was often out of my control, but as with all constructs within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**, by not always acting it out with staff, there may have been an unintended consequence for patients.

Role modelling person-centred behaviours with staff such as engagement and shared decision-making, indicate respect for individuals and their beliefs and values. These are key elements of compassionate relationships as described by Dewar and Cook (2014), which also resonate with Légaré and Thompson-Leduc's (2014) exploration of myths about shared decision-making. They review the evidence suggesting staff who have not experienced healthful, collaborative relationships find it more difficult to practice them with patients. This in turn, impacts on change management, now a regular feature of healthcare systems. Despite many opportunities for staff to undertake leadership training (Australian Government 2013; NHS 2019; Stanford Medicine 2019), Cabral *et al*. (2019) suggest that the challenges of encouraging staff to undertake leadership roles and to maintain an ethos of transformational leadership remain, with implications for staff and patients. Developing staff to engage in meaningful relationships within organisations embeds such learning in practice, enhancing therapeutic relationships with patients.

I recognised the imperative to avoid allowing my managerial experience to influence what I observed during the current study, However, I was cognisant of the interplay between communication around change and uncertainty and anxiety around implementation of change processes. Understanding how that might play out in the current study, while ensuring I did not allow that experience to influence the reality I saw, brought me back to the importance of maintaining a reflexive mindset throughout the study.

While I had previous experience of looking after patients in ‘side rooms’ on multi- occupancy wards, I had no experience of a 100% single-room environment. I had no idea of how the new environment would impact on professional practice and was mindful of the suppositions I sensed I was developing around how the improved environment would lead to improved quality of care. Previous evidence indicates that changes to the work environment can heighten staffs’ feelings of stress (Heerwagen *et al*.1995), and this had been my experience when the hospital I worked in clinically was rebuilt on a new site. I was aware therefore, that the staff participating in the study were likely to feel additional stress related directly to the move; having to get used to new ways of working, and, as Broom *et al. (*2015) noted, fear of change. Cusack *et al.* (2019) also described fear, attributed to staffs’ sense of anxiety about perceived disadvantagesof the new environment.

While I associate my sense of self with being a nurse, I am also aware that I am a member of the public, especially since I no longer work in the healthcare system. I felt I could wholly appreciate the reaction of many members of the public to the appearance and layout of the new hospital, by exploring my own reaction. On first visiting the new building, I felt a little disorientated; not knowing where wards were or even how to find the lifts to some floors. I was bemused by some of the design and layout decisions, which seemed counter-intuitive. The new ward layout resulted in a different corridor arrangement, leaving patients and visitors to traverse long corridors with sporadic signage, which Greenroyd *et al.* (2018) suggest

may be the result of signage strategies not being designed and produced by those with the relevant experience. I was also non-plussed by the increased walking distances and found myself wondering how older or less mobile people were going to manage.

My reflexive process began by understanding my own embodied sense of self, both as a nurse and as a member of the public. Identifying my *a priori* knowledge and reflecting on how it might influence the study, freed me to be able to listen to the voices of the participants (O'Reilly 2012, p. 35). White (1997) writes that to be reflexive means recognising there are multiple ways of knowing, and *'reality is rarely…static.'* The philosophical perspectives chosen to support the current study (Chapter 3), adds to the disparate ways of knowing I have accumulated. I can reflect on how they might influence the study but might also support the interpretation of the data. This reflects Denzin's view that all data is socially constructed (Denzin1996). Koch and Harrington (1998) also argue that all research findings are influenced by the researcher and reinterpreted by each reader in line with their own social beliefs, reflecting the multiple realities inherent in social research.

1.4 RESEARCH QUESTION

There is no evidence in the current literature that links patients' and staffs' experience of person-centred practice to the single-room environment in

an acute care setting. This study aims to address this gap in the knowledge base by exploring the influence of a 100% single-room, acute-care environment on the experience of person-centred practice.

The research question is: How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

There are three objectives:

1. To explore, from the perspectives of patients/families, the experiences of care within a single-room, acute hospital environment.
2. To explore, from the perspectives of staff, the experiences of working within a single-room, acute hospital environment.
3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

1.5 OVERVIEW OF THE THESIS

The overall structure of the study takes the form of seven chapters, including this introductory chapter.

1.5.1 Chapter 2: Literature review

This chapter is based on a published paper presenting the literature review

for the current study (Kelly *et al.* 2019). It details the search strategy methods employed, using systematic processes to strengthen the findings for a narrative review. The domains of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** were used to provide a roadmap for understanding the literature as it might apply to the current study. There is also some reflection on the challenges of undertaking such a review, particularly in relation to the absence of information such as the decision-making around inclusion and exclusion criteria. The same search strategy was used to identify studies published since the literature review, reflecting current work. More papers are now available, demonstrating a growing interest in the impact of the environment on experience and practice.

1.5.2 Chapter 3: Philosophical positioning

Chapter 3 focuses on the philosophical underpinning of the current study. The chapter details an exploration of Critical Social Theory (Fay 1987) and the connectivity with Social Constructivism (Vygotsky 1978) and theories around oppression (Freire 1972). To maintain the focus of person-centredness, ways of being, including an understanding of personhood are included. The final section of the chapter will describe the methodological influences which informed the selection of ethnography for the current study.

1.5.3 Chapter 4: Methodology

The fourth chapter details why ethnography is appropriate for the current study, and its relatedness to person-centred practice. The setting, and how organisational support was obtained is described. This details the complexity of organisational structures and the importance of being able to work “up and down” the organisation, to engage key stakeholders and gatekeepers at every level of the organisation. The sample and sampling procedures cover recruitment of participants, including the decision-making around the inclusion/exclusion criteria. The section detailing the data collection methods, includes further reflection on the Workplace Culture Critical Analysis Tool (WCCAT) as a platform for the observational and reflective elements of the study. The component parts of the data analysis are explained to illustrate how the process contributes to the trustworthiness of the data. This element is further explored in a separate section, to illustrate the transferability of the findings. Given that this study has engaged with human participants, particularly vulnerable patient groups, the ethical considerations are detailed in the final section of the chapter. This section identifies the ethical principles adhered to throughout the study.

1.5.4 Chapter 5: Findings

This chapter presents the findings of the study, focusing on the three key themes that describe the experience. The demographic information of each data collection method is detailed to demonstrate the variety of

opportunities to learn from participants. Each theme has several subthemes, allowing further exploration of the experience of being in a 100% single- room environment. The themes illustrate the positive and negative aspects of the built environment, and its influence on care delivery. Consideration is given to how the environment changes expectations about care delivery. The study also shines a light on emotional aspects for patients and staff, and the degrees of engagement, which may influence the experience of the new environment.

1.5.5 Chapter 6: Discussion

Chapter 6 discusses the findings in more detail, using the key themes as legends to harmonise this chapter and the previous one. The findings are discussed as they relate to the literature. Findings consistent with those in other studies are examined, confirming their applicability across different healthcare organisations. New findings develop our understanding of this environment and raise issues which are worthy of further consideration. Given the nature of the study, the enablers and barriers related to the built environment feature throughout the themes. Consideration is given to how buildings may be considered person-centred, and how to manage public expectations. Managing change in a person-centred environment is explored, as to how organisations live out the beliefs and values reflected in their mission statements.

1.5.6 Chapter 7: Conclusion

The concluding chapter brings together all the threads of the thesis. Firstly, it identifies the contribution to knowledge from this study, how it supports previous findings, and the new knowledge it presents. There are implications from this study which relate to practice, policy, research and education, and these are described. These cover issues such as public expectations, time to prepare, workforce planning, documentation and leadership skills. The strengths and limitations of the study are described. The chapter concludes with a personal reflection on performing a major piece of research and the learning and development achieved as part of the PhD journey.

1.6 CHAPTER SUMMARY

This chapter provides an introduction to the thesis. The fundamental features of this study are the 100% single-room environment and person-centred practices. Aligned to these features are the exploration of experience from the perspectives of disparate participants. Using ethnography engages us in an exploration of how culture and context shape our understanding, not only of the world in general, but the component parts therein. The hospital environment is one that most people will experience at some time in their lives, either as a patient, a visitor, or a member of staff. That experience will be shaped by their cultural traditions, and, in the case of staff members, by the organisational culture they work in.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents an updated literature review, building on the publication presented in **Appendix 1**. A particular focus will be given to the connectivity of the single-room environment and person-centred practice. The Person-centred Practice Framework (McCormack and McCance, 2017) **(Figure 1)**, provided a structure with which to better understand the connectivity between the environment and the delivery and experience of person-centred practice

In the 19th century, Florence Nightingale recognised the impact of the environment on managing infection and the importance of fresh air and pleasant surroundings to patient recovery (Nightingale 1860; Zborowsky 2014). In the 20th century, Ulrich (1991) explored the impact of the physical environment on patient experience and well-being. Ten years later, the Institute of Medicine (2001) made recommendations based on patient safety issues, which can be directly attributable to the environment and the systems and processes within organisations. Patient experience measures have also developed a greater focus on the architectural design of the physical environment. Hendrich *et al.* (2004) had reported on the impact of innovative acuity-adaptable designs on increasing productivity and potentially saving money, while improving patient experience. More recently, Anåker et al (2017) concentrated on clinical outcomes by studying the impact of the single-room design on recovery following a

stroke.

Person-centred nurse researchers have included the physical environment as a fundamental aspect of the care environment (McCormack and McCance 2006), but the role of the physical environment in facilitating person-centredness in health care remains unclear. Many of the papers in this review reflect the desire of staff to be person-centred. While much of the evidence focuses on the delivery of care to patients, there is some ideation expressed in relation to the broader meaning of person-centredness to staff and teams, as well as to patients. A subsequent update of the literature explores new, emerging literature, illustrating an increasing interest in the impact of the single-room environment in acute care settings on care delivery and experience.

2.2 BACKGROUND

2.2.1 Policy drivers

Research on the single-room environment has focused on patient safety and the reduction in health care-associated infections (HCAIs), with infection prevention and control (IPC) the major driver towards a 100% single-room environment (Bracco *et al.* 2007). This thinking has subsequently been challenged in more recent studies (Ellison *et al*. 2014), with the impact of the environment on patient safety beyond the physical

space, increasingly recognised as important internationally (Aiken *et al.* 2012).

The lack of privacy and dignity for patients in Nightingale-type wards or wards with multibedded bays (Chaudhury *et al.* 2006) manifested itself with the focus on single sex wards or bays (Department of Health (DOH) 2002), as a pre-cursor to the single-room environment in the United Kingdom (UK). National Health Service (NHS) strategic building planning (Wanless *et al*. 2002) recommended consideration of person-centredness in all building design. This reflects the *aspiration* to deliver person-centred practice, evident in global health and social care policy and strategy (European Health Property Network 2011). There has been less focus on the experience of staff in this environment with most reports relating to critical care environments (Bosch *et al*. 2012).

More recently, there has been an increasing tension in global health services between the need to focus on patient experience and patient safety (Australian Commission on Safety and Quality in Health 2011); the strategic drive to improve performance through performance indicators (DOH 2016); and financial constraint (Jasuta 2016). Within the four countries of the UK, policy and strategy documents were developed to address the delivery of high-quality, responsive services (DOH 2016; NHS Scotland 2015; Department of Health, Social Services & Public Safety (DHSSPS 2013; NHS Wales 2010). All these documents reflect the need

for safe, high-quality services, delivered by a competent workforce who feel valued by their organisations. Recent policy documents also reflect the attributes of person-centredness as central to the patient experience of health care, as it relates to the physical environment (DOH 2009); the culture within healthcare settings (DOH 2014a & b); the potential for innovation and risk-taking (DHSSPS 2016a); skill mix (DHSSPS 2016b); and shared decision-making (DOH 2012).

2.2.2 Theoretical frameworks

Theoretical frameworks have been developed to support staff in putting patients at the centre of care, exploring areas such as personhood (Rogers 1980); human behaviour (Parsons 1922); and the art of nursing (Carper 1978). The latter describes the four elements of the theory of nursing as informing the behaviour and knowledge and skills of nursing staff regardless of the environment or specialty in which they work. More recently, the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** has been developed as a middle-range theory, over several years, to "*operationalise person centredness*" (p. 38). Its international applicability across clinical practice, quality improvement, education and leadership has been demonstrated, with the care environment as a key construct. This offers researchers a theoretical foundation from which to study the impact of the physical environment on staffs' behaviour; care delivery; patient experience; and the potential connectivity to health outcomes, as defined in key strategic policy documents in recent years (DHSSPS 2013a).

At the core of person-centred practice is the recognition of personhood and the appreciation that all patients experience ill health differently. Kitwood and Bredin (1992) described a theory of personhood which includes not only the social aspect of being a person in relation to others, which they term “the empirical sense,” but that which is deserving of respect, described as the “*ethical sense*.” Rogers (1980) explored the importance of empathetic understanding in the relationship between therapist and patient, later reflected in Cahill's work (1996) on patient participation. She identifies the most crucial component to be that of a relationship between patient and caregiver, so that patient participation should be a fundamental tenet of nursing care.

2.2.3 Person-centred practice

Carl Rogers’ (1980) work developing a person-centred approach to therapy connects back to Aristotle’s Eudemian ethics, which talks of virtues being *“a continuous series of right actions*” in relationships with others (Aristotle 1955, p.55). Rogers describes the virtues of genuineness; caring; and empathetic understanding, needed to understand “*the feelings and personal meanings”* (p.116) of another. Healthcare practitioners use the principles of working together in a way that respects the individual, in a culture that fosters leadership to improve patient outcomes, as described in Archer *et al.* (2018). Person-centred practice is globally accepted as enhancing healthcare through the association between a person-centred culture to staff satisfaction (Lehuluante *et al.* 2012); to developing programmes which enhance nurses’ confidence and competence

(McCance *et al*. 2013). Alharbi *et al.* (2014) would argue however, that work remains to be done, highlighting the organisational attributes of flexibility and openness to improve patient outcomes.

The Health Foundation (2014) defines the key principles of person-centred practice as: treating people with respect and dignity; offering coordinated, personalised care and support; and supporting people to recognise and develop their own strengths and abilities. These principles are also reflected by Brito (2014) in his work on mindfulness. He sees mindfulness as a way of "*being with the patient, instead of just doing*", corresponding with Baim's (2015, pp. 21-48) description of the principles of mindful co-working:

- Respect
- Anti-discriminatory and non-oppressive ways of working
- Emotionally and socially intelligent communication
- Sharing responsibility and accountability for the work
- Helping each other to develop

Both of these examples illustrate the integration of mindfulness into person-centred practice, working for both patients and staff. Mohammed (2006) also maintains that the emancipatory element of critical social theory allows healthcare practitioners to engage meaningfully with patients to facilitate shared decision-making about their health.

Engaging in participative, person-centred processes can provide clarity around the connectivity between research and practice, to influence person-centred practice (Briseid *et al*. 2017, p.150). This process of connectivity, described as *doing, knowing* and *being* is key to staff engagement (Jacobs *et al*. 2017, p.52). These authors reflect on how person-centred research empowers all those involved through participation in a joint enterprise to improve services through sharing power. Using a person-centred ideology to reinforce the methods in the current study supports the understanding of self and the recognition of person, to make the findings meaningful to others and resonate with the participants.

Demonstrating the interplay between person-centred *practice* and person-centred *care*, Fix *et al*. (2018) discussed the lack of current evidence of how hospital staff understand patient-centred care. They pointed out that while there has been a drive from policy makers and researchers to implement patient-centred care initiatives, it is staff who are required to implement these initiatives. While these authors refer to *patient*-centred care throughout their paper, they use a thematic analysis framework which reflects on patients as *persons*. As a result, it is not clear whether they are studying *patient*-centred care or *person*-centred practice.

Patient-centred care focuses on a collaborative approach with patients, promoting holistic care (Delaney 2018). While this would also be a central

tenet of person-centred practice, that focus is wider. Person-centred practice reflects an ideology of engagement with persons in the healthcare environment, to produce a healthful culture where everyone is valued (Boomer and McCance 2017, p.210). Findings from the aforementioned study support the belief that patient centred programmes used to implement cultural change are likely to be unsuccessful without engagement at all levels of the organisation. In the past ten years, there has been an increased focus on engaging with staff to understand and interpret the findings of patient experience. Research by Beckett *et al.* (2013) describe the benefits of engaging staff in practice development projects to improve the patient experience on a mental health unit. Other researchers have identified the need for a “people-centric” approach to healthcare to enhance staff and patient experience (Peltier *et al*. 2009). Studies like this inform the successful implementation of Quality Improvement initiatives related to patient experience (Graham *et al*. 2018).

Using the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** as the theoretical framework underpinning this study, supports a deeper understanding of the impact of the environment on practice. This is unlikely to be a causal relationship, as while the physical environment is changing, the culture may not. Understanding the relationship between the environment and the delivery and experience of person-centred practice should provide additional understanding on the key elements of person-centredness and what influences their integration into every-day practice. The Person-centred Practice Framework

(McCormack and McCance 2017) **(Figure 1)** provides a lens through which to understand *relationships, caring, and knowing*, in the care environment.

To demonstrate this engagement with patients and their families, researchers in a variety of programmes of care, including dementia ((Røsvik *et al*. 2013); mental health (Beckett *et al*. 2013); bereavement (Walker and Deacon 2016); surgery (Christie *et al.* 2015); and nursing homes (van den Pol-Grevelink *et a*l. 2012) have used components of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. The lens of person-centred practice has also been used to explore how the delivery of care is documented (Broderick and Coffey 2013); to explore quality improvement methodologies (Bateman *et a*l. 2016); and interfaces with practice development (Manley *et al*. 2014).

Organisational leadership (Beckett *et al.* 2013) may also be explored through the lens of person-centredness. This is reflected in the delivery plans of healthcare organisations, advocating respect for staff and patient rights; autonomy for patients to participate in shared decision-making; and a caring culture where relationships between staff and patients, and staff and the organisation can flourish (McCormack *et al*. 2011). However, the reality of the current healthcare landscape is a focus on increasing numbers of patients; an ageing population; limited funding; and increased public expectations. Adult acute care wards often operate or function with

significant staff vacancy rates, which Aiken et al (2012) correlated with patient satisfaction reports and quality of care to describe the connectivity between the work environment, staffing levels, and the quality and safety of care. This is also illustrated in the Francis Report (2013), where the pressure on organisations to meet targets and manage increasing capacity and demand issues impacted on person-centredness.

2.2.4 Aim of the review

A review of published research into the explicit area of staff and patient experience of person-centred practice in a 100% single-room environment in adult, acute care settings was performed. A narrative description of the literature illustrates how the experience of care from the perspectives of patients and staff is impacted on by the single-room environment, using the constructs of the Person-centred Practice Framework (McCormack and McCance 2017).

2.3 METHODS

2.3.1 Search strategy

A narrative review methodology was chosen to better explore and reflect the recent research in this area. This develops thinking on the topic and identifies potential areas for further exploration. A criticism of this methodology has been its lack of rigour (Haddaway *et al.* 2015), so the principles of systematic review were employed using validated tools for

searching and critical appraisal. Problems, Exposure, Outcomes (PEO) **(Box 1)** was used to refine the search strategy using the terms within a previously defined research question. The final search terms were as follows:

*Patient experience/pat*exp*/patient; Staff experience/staff *exp*; Single-room/single room/ "single room"/single patient room/single hospital room/private room; Person-centred/ person centred/person-centered/person-centred practice/person-centred care; acute care/acute-care/ acute?care setting/adult acute care; In-patients/inpatients.*

These search terms were entered into CINAHL, Medline Ovid, Psycinfo, Embase, Web of Science and Scopus. To ensure the review reflected the most recent evidence, only full-text English language papers of empirical qualitative, quantitative and mixed-methods studies published between 2012–2017 were included. This process was repeated to identify more recent literature from 2017-2019.

BOX 1

1. **Question:**
   How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

2. **Develop search strategy using the PEO concept:**

Population and their problems	*Hospital in-patients; staff, acute care*
Exposure	*Person-centred practice in single rooms*
Outcomes or themes	*Experiences of care received and care delivered*

3. **Check any limit/s that may pertain to search:**

   Age: over 16 years Language: All Year of publication: 2012-2017

   Type of data collection: Empirical studies

4. **List the main concepts and alternative terms from the research question that will be used in the search:**

(a) Patient experience
(b) Staff experience
(c) single room
(d) Person-centred
(e) acute care
(f) Adult acute care

5. **Add Boolean phrases:**
   AND to narrow search in:

(a) Patient experience **AND** single room
(b) Staff experience **AND** single room
(c) Person-centred **AND** acute care **AND** single room
(d) Adult acute care **AND** single room

6. **Databases searched:**
   CINAHL
   MEDLINE Ovid
   PsychInfo
   Web of Science
   Scopus
   Ethos
   Google Scholar

Box 1 Bettany-Saltikov, J. (2012, p.22) *How to do a systematic literature review in Nursing: a step-by-step guide*
https://www.dawsonera.com/readonline/9780335242283

PRISMA was used as a framework to provide a robust methodology illustrating final paper inclusion **(Figure 2)**. The PRISMA checklist was completed for additional trustworthiness of the selected material. Papers

which did not describe empirical studies; discussion or opinion papers; and systematic review papers were excluded from this review. While there were several discussion pieces and systematic reviews identified, they fell outside the date parameters of this review. Studies relating to children and other specialist areas of clinical practice were also excluded to meet the explicit exploration of the general acute adult inpatient setting, which is the focus of the research question informing this review.

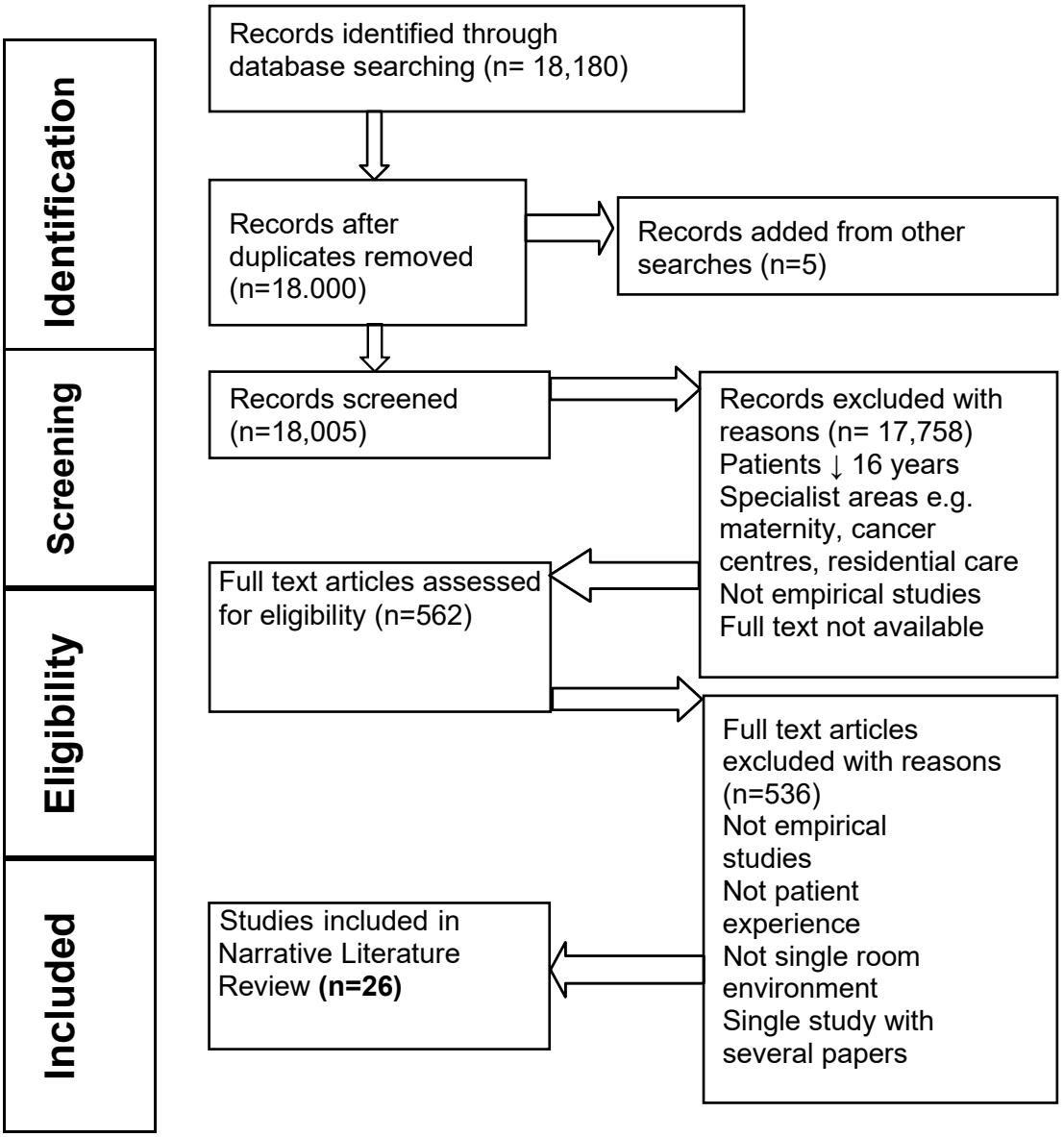

Figure 2 Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., PRISMA-P Group (2015). *Preferred reporting items for systematic review and meta- analysis protocols(PRISMA-P). Systematic Reviews, 4(1), 1–9.* *http://www.systematicreviewsjournal.com/content/4/1/1*

When the final papers had been selected, a review of all the references in those papers was also undertaken to ensure all appropriate papers had been captured. At this point, the selected papers were cross-referenced by the supervision team to achieve further rigour. The final stage was to critically appraise the final 12 selected papers in the first review **(Appendix 22)** and 14 papers in the updated review **(Appendix 23)**. The CASP framework for qualitative papers **(Box 2)**, and the EPHPP Quality Assessment Tool for Quantitative Studies **(Box 3)**, were used to provide additional robustness. This screening was carried out by the researcher who undertook a full paper review of all the final papers.

SCREENING QUESTIONS

	Yes	No	Can't tell
1. Was there a clear statement of the aims of the research?	☐	☐	☐
2. Is a qualitative methodology	☐	☐	☐
3. Was the research design appropriate to address the aims of the research?	☐	☐	☐
4. Was the recruitment strategy appropriate to the aims for the research?	☐	☐	☐
5. Was the data collected in a way that addressed the research issue?	☐	☐	☐
6. Has the relationship between the researcher and participants been adequately considered?	☐	☐	☐
7. Have ethical issues been taken into consideration?	☐	☐	☐
8. Was the data analysis sufficiently rigorous?	☐	☐	☐
9. Is there a clear statement of findings?	☐	☐	☐
10. How valuable is the research?	☐	☐	☐

Box 2 CASP Framework *Critical Appraisal Skills Programme (2017) Qualitative Research Checklist (online). Available at www.casp-uk.net/casp-tools-checklists*

COMPONENT RATINGS

A) SELECTION BIAS

(Q1) Are the individuals selected to participate in the study likely to be representative of the target population?

1. Very likely
2. Somewhat likely
3. Not likely
4. Can't tell

(Q2) What percentage of selected individuals agreed to participate?

1. 80-100% agreement
2. 60-79% agreement
3. Less than 60% agreement
4. Not applicable
5. Can't tell

Rate this section	Strong	Moderate	Weak
See dictionary			

B) STUDY DESIGN

Indicate the study design

1. Randomized control trial
2. Controlled clinical trial
3. Cohort analytic (two groups pre + post)
4. Case-control
5. Cohort (one group pre + post (before and after)
6. Interrupted time series
7. Other specify
8. Can't tell

Was the study described as randomized? If NO, go to Component C

No ☐ Yes ☐

If YES, was the method of randomization described? (see dictionary) No ☐ Yes ☐

If YES, was the method appropriate? (see dictionary) No ☐ Yes ☐

Rate this section	Strong	Moderate	Weak
See dictionary			

Box 3 Thomas, B.H., Ciliska, D., Dobbins, M. and Micucci, S. (2004) *A process for systematically reviewing the literature: Providing the research evidence for public health nursing interventions Worldviews on Evidence Based Nursing.1(3):176-184.* https://www.ephpp.ca

The constructs of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** were used to clarify the appropriateness of the findings in relation to this review

2.4 RESULTS OF THE REVIEW

The current version of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** consists of five domains with several constructs within each domain:

- Macro Context: health and social care policy: strategic frameworks; workforce developments; strategic leadership
- Prerequisites: professionally competent; developed interprofessional skills; commitment to the job; clarity of beliefs and values; knowing “self”
- The care environment: appropriate skill mix; shared decision-making systems; effective staff relationships; supportive organisational systems; power-sharing; potential for innovation and risk-taking; the physical environment
- Person-centred processes: working with the patient's beliefs and values; engaging authentically; sharing decision-making; being sympathetically present; providing holistic care
- Person-centred outcomes: good care experience; involvement in care; feeling of well-being; existence of a healthful culture

2.4.1 Macro Context

Patient safety issues and their interconnectedness with patient experience have played out in the public domain. The UK public inquiries in Mid Staffordshire (Francis 2013) and the Southern Foundation Health Trust (NHS England 2015) challenged health service managers and clinical staff to address poor patient experience and the increasing patient safety concerns in acute care. None of the reports reflect on the physical environment as a key factor in patient safety or patient experience, although the Francis Report (2013) does acknowledge the poor physical environment and patients' lack of privacy and dignity. Person-centred attributes such as professionally competent staff, strategic leadership and the existence of a healthful culture feature prominently in both reports, highlighting their contribution to the standard of care expected by patients. Within the domain of the macro context, all four constructs are reflected in the literature under review.

2.4.1.1 Strategic policy and frameworks

In the UK, strategic policies reflect the need for safety and quality, delivered by a competent workforce, reflecting the attributes of person-centredness central to the patient experience of health care. IPC was a major patient safety driver towards a 100% single-room environment, with King et al's (2015) quantitative model of surface contacts indicating the need for increased single-room accommodation to reduce infection rates. While there is a recognition of the part single rooms play in infection control,

none of the papers in this review reflect on process changes to enhance IPC. This suggests an assumption that the room design is sufficient to reduce infection rates. Studies to date have not investigated any change in infection control behaviours, such as increased hand washing within the single rooms, or the introduction of new antimicrobial building materials, which may have more impact than the design itself.

Maben *et al.* (2015) reflect on many of the strategic and policy drivers in the UK, which influenced the development of the single-room environment in healthcare settings and drove the design of their study. This is less evident in other studies. Local or national policies on the delivery of care are referenced, including national frameworks (Nahas *et al*. 2016), patient safety drivers (Knight and Singh 2016) and UK government strategies (Singh and Okeke 2016). There is no indication in any of the international papers of the impact of any strategic drivers on those studies.

2.4.1.2 Workforce

The aforementioned public inquiries resulted in intense scrutiny of the competency of the nursing workforce, leading to a revised and more robust revalidation framework (Nursing and Midwifery Council (NMC) 2016). Staff are required to provide stronger evidence of their learning and reflection on their practice. As staff move to new clinical environments (from multibedded bays to 100% single rooms), knowledge and skills may have to be reviewed to facilitate different ways of working. A different

environment may result in challenges to established care delivery processes and the need to work differently, which may contribute to increased stress levels among staff.

There is evidence from the mixed-methods study undertaken by Maben *et al*. (2015), that staff stress levels are exacerbated by the development of single-room environments. Firstly, staff's perception of the increased walking distances and the need for improved nurse:patient ratios are identified as impacting on the delivery of person-centred care. It is clear further work is needed to establish the validity of these concerns. Secondly, the increasing acuity of patients within acute care has been recognised within different healthcare systems. Palliative care patients (Timmermann *et al*. 2015); patients with dementia (Knight and Singh 2016); and patients undergoing major surgery (Nahas *et al.* 2016) illustrate the breadth of knowledge and skills currently required by staff in acute care settings. The introduction of single rooms for the management of these patients is reportedly beneficial to recovery, according to patients who were interviewed by Persson *et al*. (2015).This is the result of undisturbed sleep and a quiet restorative environment. However, the additional stress of organisational demands of higher acuity patients in a single-room environment has not yet been fully explored either nationally or internationally.

Some papers focused on patient safety. Singh and Okeke (2016) studied the introduction of staff training to improve the incidence of falls and reflect on the need for ongoing support and monitoring of compliance to enhance the improvements made. The authors note that sustainability was challenging, and this raises the issue of sustaining new processes following the move to a new environment. Significant levels of support might be available during the initial move, but when that support is withdrawn, sustainability may be related to the amount of additional staff development and support still required and acted on. This is always a challenge in Plan, Do, Study, Act (PDSA) quality improvement methodology work (Tan *et al*. 2013; Singh and Okeke 2016). Researchers need to consider not only the phenomena being researched, but also how interventions can be implemented and sustained for the benefits of patients and staff. This is particularly relevant in a new clinical environment, where often there are several competing pressures around new processes.

2.4.1.3 Strategic leadership

Only one study looks specifically at the challenges of leadership in the single-room environment (Maben *et al.* 2015). They discuss how a change in individual leaders at the same time as significant change to the working environment can cause instability. They also reflect on how organising changing work patterns to reflect staff workloads and different time management issues, because of the new layout, can impact on staff morale. The connectivity between effective staff relationships and supportive organisational systems within a care environment reflected in

the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** is not identified in any of the papers. This suggests a disconnect between leadership roles, the delivery of person-centred practice and the physical environment still exists.

Engaging staff in the design of a new clinical environment captures person-centred constructs such as shared decision-making and power sharing. This has been recognised in some of the more recent studies. While there is still little evidence in the literature of the impact of staff engagement, one group of researchers report the findings of a recent study which explored staffs' opinions about room design features (Evans *et al* 2018). This study related to radiology practitioners, allowing them to design rooms which would facilitate more care at the bedside. The study supports the idea that involving clinical staff in the design of new inpatient environments can reduce the number of snagging issues (minor defects or omissions by contractor) that are inevitably identified by staff post move, thereby reducing staff stress. It also mirrors findings from other research that illustrate a move toward acuity-adaptable rooms to reduce patient transfers around the hospital (Kitchens *et al*. 2018). While these studies both originate in the United States, there is clearly learning for the NHS in the opportunities that might arise within the single-room environment, which were not previously available.

2.4.2 Prerequisites

Within this construct, the concept of being professionally competent is reflected more fully in the section on workforce, illustrating the connectivity within the concepts of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. There is no specific reference to the concept of knowing "*self*" in this literature, or how beliefs and values influence a culture in which person-centred practice flourishes. This is particularly disappointing given the number of international papers included. Such a deficit suggests a lack of appreciation of the impact that beliefs and values may have on the culture within an organisation or ward environment. Many of the studies have tended to reflect moments in time, as opposed to an established culture, using questionnaires/surveys (Reid *et al*. 2015; Nahas *et al*. 2016). Perhaps more longitudinal studies that capture how the beliefs and values of person-centred practice have been embedded in clinical practice are required. Such studies would reflect the single-room environment as a growing feature of the acute healthcare landscape, across many healthcare systems.

2.4.3 The Care Environment

This is the largest construct within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. The most significant concept featuring in the literature is that of the physical environment - in this case, 100% single-rooms within an acute care setting. The specific challenge of achieving person-centred practice in such an environment focuses

primarily on the complexity of the service, the context in which care is delivered, and high expectations of patients and staff.

2.4.3.1 The physical environment

Practical issues such as security and isolation feature in several studies (Persson *et al.* 2015; Reid *et al.* 2015; Nahas *et al.* 2016; Singh *et al*. 2016). Environmental cleaning, having previously been identified as a significant factor in IPC in new healthcare buildings (King *et al*. 2015), is also identified as key to enhancing the patient experience (Nahas *et al*. 2016). More recent studies have identified that improved design features resulted in an increased sense of well-being among patients, with reduced noise levels a particularly positive feature of the experience (Campos Andrade *et a*l. 2017; Bliefnick *et al.* 2019; Boylan *et al*. 2019).

The less readily discernible concept of control is present in several studies. Patients report their satisfaction with the increased control they have over their environment in a single-room ward design (Maben *et al*. 2015; Nahas *et a*l. 2016). They also identified their feeling of having control over information being shared among staff in Bradley and Mott's (2013) mixed-methods study on bedside handovers. Older people in particular appreciated the degree of control they had, especially in relation to toilet facilities in single rooms (Reid *et al*. 2015). It was clear, however, that their preference for single rooms was predicated on other interventions, such as intentional rounding or open visiting (longer/unrestricted visiting hours),

which would reduce a sense of isolation. There was no deeper exploration of what matters more to patients - privacy, allowing them to control their environment, or greater interaction to reduce isolation. These disparate needs may account for the challenges faced by designers in creating functional clinical buildings that facilitate a therapeutic environment.

The notion of visibility not only relates to staffs' ability to see the patients, but also their ability to see and communicate with each other (Maben *et al*. 2015). During interviews for the aforementioned study, patients shared this concern. By not knowing what staff were doing they felt unable to attract staffs' attention. This relates to the isolation and loneliness discussed later in this section. Understanding and appreciating how this might impact on both patient experience and safety is key for staff. They need to reflect on the possibility of loneliness and isolation as part of their review of the working processes in a new single-room environment. The current literature also includes work on nurses' experiences of the sensory impact of this environment (Donetto *et al*. 2017). This work explored the concern nurses have about the reduced opportunities to 'scan' patients regularly and the extra time needed to check on all patients individually. As with the previous literature review, there were contrasting opinions from patients and staff with regard to the siting of the staff base. Patients clearly prefer being able to see the staff, so decentralised stations (Real *et al*. 2018); or being placed nearer the nurses' station (MacAllister *et al.* 2019) were viewed as positive experiences. Staff gave a more mixed response to decentralised stations, with some authors proposing that organising

support spaces nearer to staff bases results in greater positivity about the design (Fay *et al*. 2017).

The concept of systems and processes found in the literature, reflects how facilitating clinical leaders to have greater input into the design, may provide additional emphasis on the operational processes at the planning stage of a new build. Strategic leadership which features in the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** it could be suggested, takes on greater importance in the single-room environment. Addressing how increasing patient acuity and an ageing population with comorbidities can be safely managed within a person-centred culture is crucial in this new environment.

While several of the studies reflect on the care of patients with dementia, there is no recent empirical work on the impact of the single-room environment relating to these patients. Researchers have tended to focus on specific aspects of care or patient safety issues, as in a prospective observational study by Knight and Singh(2016), carried out before and after the move to a new hospital. Singh and Okeke (2016) meanwhile, used Plan. Do, Study, Act (PDSA) cycles to introduce an intervention to improve patient falls. Maben et al (2015) argue that there is insufficient information about managing the needs of persons living with dementia in the single-room environment. There are no studies exploring if patients with cognitive impairment are reassured by not having to move from place

to place in hospital, with more services potentially able to come to them in the single-room environment as previously hypothesized by Dowdeswell et al (2004). Staff interviewed in the Maben et al (2015) study felt all older persons, especially those living with a cognitive impairment, benefitted from being encouraged to leave their room for both social and clinical reasons. The challenge was having sufficient staff to support such individuals as they moved around the ward space. These issues also need consideration at the design stage. A focus on organisational systems and processes to address issues arising in a 100% single-room environment, might enhance the care of these patients. In addition, the prerequisites of the workforce, and professional competency of staff needs to be considered in light of the new environment.

One of the obvious, but often overlooked factors in clinical room design is the importance of aesthetics in patient rooms to aid healing. Timmermann *et al.* (2015) used multiple interviews and observations to investigate how seriously ill hospitalised patients' experience and assign meaning to their patient room. They describe how, in open wards, while there may be a lot of technical equipment around, there is also a lot of activity to act as a distraction. In single rooms, this distraction is absent. As a result, the design of the room needs to counteract the presence of clinical equipment, particularly for those patients who are or have been very ill. There is no clear picture emerging of the connectivity between all these elements of patients' experience and person-centred practice. This may be because of the specificity of the questions asked or the restricted focus of the study.

The result is that it is challenging to identify any further design elements, which would improve the experience in this environment.

Loneliness is a theme running through several papers (Preston and Maskell 2014; Persson *et al.* 2015; Reid *et al*. 2015; Nahas *et al.* 2016; Singh *et al*. 2016). One study recognises the need for a social space such as day rooms in a single-room environment, to address patients' sense of loneliness and isolation, which can sustain or impede the healing process (Persson *et al.* 2015). The authors of this paper use the data to reflect the impact of socialisation on healing and "*alleviating suffering*." In contrast, other studies reveal that patients are not enamored by the idea of day rooms (Reid *et al.* 2015). This supports the idea that it is not the environment or the elements within it that enhance patient experience, but how staff and patients maximise the potential of the space available to them. Reid *et al.* (2015) also reflect on the patient's ability to make a single room more "*homely*", which patients feel would help in their recovery process. As a result, patients relate their surroundings to their feelings of well-being, which links to personal beliefs and values. In turn, this reflects patients' social reality which, as Bourdieu (1989) describes, may be different to the social reality within a hospital. The culture within a hospital setting is shaped by those who manage and work within it. Patients may be familiar with this culture if they have had previous experience of being in hospital or have worked in this setting. However, for some patients (older people, ethnically diverse patients), the culture may appear very different to their own social reality and this can impact on their recovery (Persson

et al. 2015).

Given this possibility, it is interesting to note that, in almost all the studies in this review, there is evidence that many patients were excluded from sampling. Those patients who had cognitive impairment or could not read, write or speak the language of the researchers were often not invited to share their experiences (Tan *et al*. 2013; Nahas *et al*. 2016). The authors do not indicate if there were any such patients on the wards at the time of their studies and if so, whether they considered any ways of ensuring that the voices of those patients were also heard. This suggests that the concept of personhood and the "*empirical sense*" of persons (Kitwood and Bredin 1992) is being lost in the research process. In addition, there appears to be a lack of published evidence around the diverse needs of the patient population in the single-room environment. Designing environments which meet the need for patient privacy; address the negative aspects of isolation; and the need to preserve patient safety, may require more innovative solutions for particular patient groups.

Recent work from Anäker *et al*. (2019) explored the concept of connectedness with the outside world and the impact of the single-room environment on patients' sense of normality. Through interviews with patients, the researchers identified a sense of loneliness created by the isolation the patients experienced, and the benefit of feeling close to nature through natural light and views. Patients are also reportedly experiencing

an increased sense of isolation related to the amount of time it may take for calls to be answered. While nurse call systems have been in place for some years, the single-room design has increased their use *and* patients' anxiety about being left alone. On open wards, patients were reassured that the other patients could summon help for them if needed (Persson *et al.* 2012). In the new design, patients cannot see the staff so may be concerned if the system is working and how long it will be before staff respond. Reassuringly, in the survey carried out by Nahas *et al*. (2016), patients perceived staff response times to be similar in the open ward and single-room environment. However, being unable to see the patients as they would have done on an open ward, means staff need to plan work-arounds to manage a new way of working. Klemets and Evjemo (2017) undertook interviews, observations and focus groups with staff over four years to study how nurses managed a new nurse-call system. They concluded that staff required resilience to constantly review the strategies they had developed to manage the call system alongside fluctuating service demands.

2.4.3.2 Patient safety

Much of the previous literature on the single-room environment has focused on IPC, medication errors and falls. It appears, however, that in more recent work there was no difference in the results of patient safety measures pre-move and post-move to this environment (Maben *et al.* 2015). Interestingly, significant amounts of work carried out in the last 5 years appear to have focused on the negative impact of the single-room

environment in relation to patient falls (Okeke *et al.* 2014; Knight and Singh 2016; Singh and Okeke 2016). It should be noted that all these studies took place in the same organisation. Data were collected in a new 100% single-room environment and in an older multibedded environment, where there was clearly a focus on falls prevention. Singh and Okeke (2016) describe the most robust study, using PDSA methodology to test four interventions aimed at improving the incidence of falls. None of the studies include any of the confounding factors which may have influenced their findings such as reason for admission, previous history, degree of cognitive impairment. None of the studies include staffing ratios. Knight and Singh's interventional study (2016) focuses only on nursing staff and does not account for the increased focus on falls as an influencing factor on the results.

Ulrich *et al*. (2004) had previously reviewed the evidence around medication errors. They found that the introduction of medication rooms as part of hospital redesign, reduced the incidence of errors. In contrast, Maben *et al.* (2015) found only a temporary increase in medication errors. They surmised this was more likely to be due to the adoption of new working practices, rather than the single-room environment itself. This is an important point, relating to the previous concept of being professionally competent, and the construct of the care environment. Both illustrate the need to review or enhance the knowledge and skills of staff around working practices in a new physical environment.

Singh and Okeke (2016) suggest that only falls warranted any form of risk assessment, while Maben *et al.* (2015) report the challenges of having reduced visibility from centralised nurses' stations in single-room environments. Even when risk assessments and incident reporting are in place, there is evidence that recording may be poor (Knight and Singh 2016). This relates back to the concept of strategic leadership, and whether the culture within an organisation encourages incident reporting as a means of collective learning or as a risk-averse strategy. Evidence of the greater use of risk assessment in this new environment would help staff understand the connectedness of person-centred care to patient safety. This might promote the practice of placing more vulnerable patients in rooms where they could be viewed unobtrusively. The result would hopefully be a greater focus on the organisation of care to improve patient safety and experience.

2.4.3.3 Systems and processes

There is some evidence of the interconnectedness of the physical environment with healthful culture, workforce development and a good care experience. Staffs' anxiousness about staffing resources (Maben *et al.* 2015) and managing new processes (Tan *et al*. 2013), is clear. What is less evident is how organisational systems are integrated into a new clinical environment, and which systems may need to be changed or adapted to accommodate person-centred care. Orientating patients to the whole ward to identify social areas, as well as their room, was described as one way of addressing the isolation that many patients felt (Maben *et al.*

2015). While several papers discussed the potential improvements in patient safety from a single-room environment, there was no evidence of a direct correlation.

The vulnerability of staff and patients in relation to systems and processes comes across in several papers (Maben *et al*. 2015; Nahas *et al.* 2016). The busy, process-driven environment of acute care can also be a challenging one in which to develop relationships. Developing therapeutic relationships is a key element of person-centred practice (Bradley and Mott 2013), regardless of the design. However, there is no evidence of any exploration of staffing rotas or team working to address the issue of continuity of care within the single-room environment. This is despite patients highlighting the issue as a key influence in their experience of care (Bradley and Mott 2013). Systems and processes, the complexity of the patient's condition, the pace with which care happens, and the uncertainty around diagnoses can converge to make the engagement between patients and professionals less person-centred. Valuing patient autonomy and their right to be involved in shared decision-making about care comes back to the notion of personhood and respecting the beliefs and values of patients, which staff would claim to espouse to. This may be why so many patients reflect on the importance of having family members present to aid in communication, or to reassure them of their safety when they feel insecure, particularly at night, in a single-room environment (Persson *et al*. 2015).

2.4.4 Person-centred Processes

Working with the patient's beliefs and values and providing holistic care are linked to all the constructs within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. Engaging authentically and being sympathetically present are captured in the sub-theme of time spent with patients. Shared decision-making is captured within communication. This connectivity with other constructs appears to suggest that staff and patients relate their ability to communicate and work together to enhance the care experience, with how systems are organised.

2.4.4.1 Communication and shared decision-making

While there is a significant amount of literature around communication in acute hospital environments, there has been less emphasis on the specific connectivity between communication, the environment and patient experience. Bourdieu (1989) discusses issues of "*spatial segregation*" and this is increasingly the view of nurses' stations. These are often viewed negatively by patients, who regard them as places where staff choose to socialise rather than spend time with the patients. The idea of moving away from centralised areas such as the nurses' stations into decentralised teams is increasingly a feature of the architectural design of the single-room environment. It is considered key to enhancing communication with the patient, reducing miscommunication and reassuring patients about the staff who are caring for them (Fay *et al* 2017). However, staff viewed the development of decentralised nurse stations negatively in the study by Maben *et al*. (2015). They felt it created greater isolation, created a lack

of coherence in the nursing team and prevented interaction with other healthcare professionals. This argument was also used to describe the single-room environment in general.

Having multiple conversations with different staff over the course of a day would be a common experience for many patients. This is partly reflected in the papers discussing handovers in acute care wards. Work exploring the role and siting of the nurse's station has resulted in changes in design and the introduction of bedside handovers (Bradley and Mott 2013; Tan *et al*. 2013). This speaks to an increased understanding of partnership and power sharing which patients seem to view more positively than staff in some areas. It is clear, however, that isolated discussions during ward rounds or specific questions about patient preferences are not enough to make patients feel that they are in control of the decisions around their care.

McCormack *et al.* (2011) reflect on the value of person-centred moments and how they might evolve into person-centred practice. A key concept in pursuit of this would be how practitioners engage authentically with patients and others as part of their communication and shared decision-making around care. The missed opportunity therefore, to explore communication more generally, as to how the information from the handover was passed on to other healthcare professionals, is disappointing (Bradley and Mott 2013). The evaluation of changes to the

handover process in this paper and others (Tan *et al*. 2013), would suggest there are opportunities to enhance communication and shared decision-making strategies between professionals and patients in the single-room environment. Further research into the concept of prerequisites and developed interprofessional skills within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** would be beneficial. Such research could enhance understanding of how time with patients could be better used. It might also illuminate the impact of the single-room environment on shared decision-making, communication and partnership.

2.4.4.2 Time spent

The concept of being sympathetically present reflected in a qualitative study by Chan *et al.* (2011) focuses on the tension staff experience in spending sufficient time with patients to deliver more than just person-centred moments. Using a mixed-methods approach, Maben *et al*. (2015) identify the difficulties nurses faced in addressing patients' competing needs when working in a single-room environment. The result is nurses' reflection on their time management and planning skills, and the recognition of the need to change the way they work. Staff working in a single-room environment also have to consider issues such as managing pain relief differently (Nahas *et al.* 2016), and recognising when patients are feeling insecure (Persson *et al*. 2015). These studies also explore how additional time and surveillance can be managed through amended systems and processes.

Increased patient turnover and a lack of a prior relationship between professionals and patients offer challenges to modern health care. One study suggests patients' confusion around their caregivers may be addressed through bedside handovers and multidisciplinary rounds (Tan *et al*. 2013). Some patients view the bedside handover as a social interaction that facilitates the nurses to focus on them for a few minutes (Bradley and Mott 2013). This has sometimes been interpreted as a good outcome by the patient. These authors also identify staffs' aspiration to engage authentically and be sympathetically present in recognition of the positive impact on communication. However, there is no evidence in the literature of the impact of the single-room environment on person-centred outcomes, because of the increasingly time-limited relationship between professionals and patients.

2.4.5 Person-centred Outcomes

The final domain of the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** reflects the outcomes for patients and staff. One of the aims of this review was to explore how the literature reflects the impact of the single-room environment on person-centred outcomes, through the recognition and application of other constructs within the framework.

2.4.5.1 Experience of care

The most complete picture of staff experience in a 100% single-room environment carried out to date comes in the recent mixed-methods study by Maben *et al*. (2015). Staff identified lack of flexibility in the design. Isolation of both patients and staff, resulted in increased safety concerns around summoning help. Increased walking distances were felt to reduce time spent with patients. More positively, environmental cleanliness was perceived to have improved because single rooms were easier to clean. Emotional support to patients was also increased because open visiting was introduced. Handover and communication however, were perceived to be worse. Overall staff indicated a preference for a mixed environment of single rooms and multibedded bays. This study was carried out at a point in time when there were few 100% single-room wards or hospitals in the UK. It requires replication to validate its findings, but it is clear from other literature in this review (Tan *et al*. 2013; Reid *et al*. 2015; Singh *et al*. 2016), that many of the same issues have subsequently arisen in other units.

Patients in all the studies view the single-room environment more positively than healthcare professionals. This suggests that while staff acknowledge the importance privacy plays in the overall patient experience, they feel it is at the expense of communication and patient safety. More recent interviews with patients reveal that while they are increasingly being asked for their opinion about their experience in hospital, a sense of indifference to their surroundings is emerging (Snyder and Fletcher 2019). It is unclear if this is due to feeling ill; being happy with everything, or just assuming that “that’s what happens here.” As a result,

researchers and those exploring patient experience may need to become more imaginative in their approach to elicit the true feelings of patients about their experience. Older people in particular, tend to be less forthcoming about negative views of their care experience. Yet current literature has identified that older persons (Young *et al*. 2017) or those recovering from a stroke (Anäker *et al*. 2017) placed in a single-room environment, had poorer outcomes measured. In particular, these related to Length of Stay (LoS) and engagement with activities to promote recovery.

Several of the studies focus on patient experience, reflecting patients' perception that single rooms equate to better privacy and dignity and to improved care and therefore improved outcomes (Maben *et al*. 2015; Knight and Singh 2016). However, there appears to be little evidence to support the correlation between privacy and improved outcomes. There is a suggestion that patients could be left to fend for themselves resulting in them feeling less secure in the single-room environment (Persson *et al*. 2015). Patients who perceived a greater nursing presence in the rooms felt safer and more cared for. The physical presence of the nurse appears to enhance the patient's perception of the care received, alongside making the environment more welcoming and less clinical (Timmermann *et al*. 2015).

Singh *et al*. (2016) studied the loneliness experienced by older patients in a single-room environment. The mean age of participants in this study was

80 years, and the authors suggest that older people value socialisation more highly than privacy. The paper also describes the impact of family presence on patient experience, particularly in this older age group. The impact of carers/family members on care delivery when patients are admitted to hospital has not been explored in adult care to the same extent as in paediatric care. Reid *et al.* (2015) found patients' confidence in their care is higher if a family member is present, also reflecting the value of open visiting as a means of enhancing emotional support. Given the drive to design all new buildings as 100% single-room environments, and the increasing age and complex health needs of the population, the literature would suggest further work is required to explore their care in hospital and the additional considerations required in this emerging environment.

Providing palliative care while caring for other patients in an acute ward is one example of the increasing complexity and vulnerability of the patients receiving acute care currently (Timmermann *et al.* 2015). It is practice in many hospitals in the UK to offer patients receiving end of life palliative care the use of a single room within an acute ward if it is available. Therefore, a single-room environment would be very suitable for many of these patients. However, palliative care is also delivered for other reasons, such as patients with life-limiting conditions or those with complex health needs (Knight and Singh 2016; Singh and Okeke 2016). Clarity around this may inform where a patient is placed in a ward of single rooms. Staff working in a person-centred way should consider the systems and processes relating to organisation of care, providing holistic care and shared decision-making as

fundamental principles. They also need to recognise the additional safety focus required for these vulnerable patients. The construct of strategic leadership would also indicate that in a person-centred culture within an organisation, maintaining the professional competency of staff members is a key element of caring for the increasing number of patients with dementia, other cognitive impairments, life-limiting and end of life conditions in a single-room environment.

2.4.5.2 Complexities of care experience and delivery

The complexity associated with the delivery of person-centred practice in an acute care environment has previously been identified, but there has been less focus on the impact of the environment, and specifically the impact of the ward design (Timmermann *et al*. 2015). The deficiency of research into the interconnectedness of care delivery and experience in single-room environments suggests that there remains a lack of understanding on the impact of the physical environment and the meaning of the care environment in a wider context. This has significant implications for staff and patients. As a result, one would expect the research literature to be more focused on how the collective understanding of person-centred practice impacts on the reality of an acute care setting. A fixation with systems and processes (Bradley and Mott 2013; Okeke *et al*. 2014), results in person-centredness or person-centred care being viewed as a “bolt-on”, when time allows. There appears to be little evidence of how the environment can be used to positively impact systems and processes to improve the patient experience. Many of the papers do reflect the desire of

staff to be person-centred, but much of the evidence focuses on the delivery of care to patients (Knight and Singh 2016; Singh and Okeke 2016). Some ideation is expressed in relation to the broader meaning of person-centredness to staff and teams, as well as to patients (Bradley and Mott 2013). The lack of detail around person-centred attributes such as professionally competent staff, strategic leadership and the existence of a healthful culture is notable. This highlights that although their contribution to patient care is recognised, there remains a disconnect between understanding the need for these attributes and embedding them in the care environment.

Respect for patients' routines and personal identity through their beliefs and values in a single-room, acute care environment does not appear to have been explored in the available literature. Engagement, emotional support and the development of therapeutic relationships are central to person-centred practice, and yet in this literature they are studied in isolation (Nahas *et al.* 2016; Singh *et al.* 2016). The authors use methodologies which do not lend themselves to more extensive exploration of patient and staff experience. For example, Singh and Okeke (2016) use a service improvement methodology to study the impact of a nurse training programme to reduce inpatient falls. While this provides some very interesting information on the use of PDSA cycles and the challenges of implementing training programmes in an acute care setting, the authors might have developed this further. By exploring what training staff receive in preparation for working with the older, acutely unwell patient, they could

have studied the connectivity between prerequisites, systems and processes and the well-being of patients. This might well have involved the same service improvement methodology in part but would have provided a more complete understanding of the needs of these patients and the challenges they present.

Changes to the environment will not lead to an improvement in care if the underlying culture and engagement with person-centredness have not been established. When a new physical environment such as a 100% single-room environment is introduced, there is an expectation that care will be maintained or significantly improved. It is hardly surprising that staff continue to use the same systems and processes and maintain the same culture when the impact of the environment is not understood any better than the culture of practice. Exploring the cultural context within the single-room environment does not yet feature in the literature, even though authors have captured some of the challenges identified by staff in this new environment (Maben *et al.* 2015). Perhaps it is too early in the evolution of this environment within the NHS to expect to see studies relating to its impact, but there appears to be little evidence internationally either, where this physical environment would be more common.

2.4.5.3 Reviewing literature

Four of the studies in the original review were from international health-care systems **(Appendix 22)**. Two of the studies used patient interviews

(Tan *et al*. 2013; Timmermann *et al.* 2015) with the latter also collecting some observational data. The other two studies sought the views of both patients and staff, but this was focused on a very explicit intervention (Bradley and Mott 2013; Persson *et al.* 2015). Given the small number of international papers in the original review, it is difficult to draw any conclusions on the wider implications of the impact of the single-room environment on the care experience. The updated review included twelve international studies **(Appendix 23)**. Observational studies, interviews and surveys played a much greater role in these papers as the experiences of staff and patients were researched.

This illustrates some of the issues associated with assessing the quality of the research in the first review, and the importance of timely updating of literature reviews.. Using CASP and EPHPP tools provided some structure for the assessment, with several papers explaining their methodological choices (Bradley and Mott 2013; Maben *et al.* 2015; Persson *et al*. 2015; Timmermann *et al*. 2015). While all the papers provided some insight into either person-centredness or the single-room environment, there was a paucity of information on the validity and reliability of the research methodology. This resulted in the quantitative and mixed-methods studies being scored as weak. Some papers sought to enhance this aspect of their study by detailing how participants were recruited (Knight *et al*. 2016; Nahas *et al*. 2016). This lack of detail may be due to authors having to meet journal word limits, leading them to exclude this information from an article on results.

It is of note that the ethical challenges of carrying out research with these patient groups seem to be inhibiting researchers in both reviews. Patients who had any cognitive impairment or could not speak English were excluded in all the studies in this review. There is no evidence provided in the papers about measures which could have been considered to overcome these challenges. One could argue that the purpose of publishing research findings is to focus on one aspect of care or service provision, and in that case, the papers in this review accomplish that. What may have been more meaningful, would have been some demonstration of the collective impact of strategy, knowledge and practice and its association with care experience.

2.5 CHAPTER SUMMARY

The published literature review for this study focuses on empirical studies relating to person-centred care in the single-room environment published in the last 5 years, so that the most recent evidence might be assessed. While the impact of the environment on care delivery and patient experience is well documented, there is little evidence relating to single rooms in adult acute care settings. Some studies have linked the role of the physical environment to patient outcomes and improved patient satisfaction; however, these are also limited.

The Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** provides a model with which to understand the integration

of theory and practice in relation to the delivery of safe and effective health care. It was used in this review to provide structure through the five main domains related to person-centredness. The initial review demonstrates the importance of key elements such as communication, authentic engagement and the physical environment, but fails to identify the interconnectivity of those elements in relation to patient experience. More recently, there is evidence of the impact of culture and care processes on patient experience in this environment. Additionally, there is increasing evidence of staff experience, but generally the relationship between the experiences of the two groups are not explored.

CHAPTER 3: PHILOSOPHICAL POSITIONING

3.1 INTRODUCTION

This chapter identifies the epistemological and ontological ways of knowing that underpin the current study. Understanding the foundations of knowledge and ways of knowing as they relate to the study, influences the methodological design. The challenges of identifying the elements of the various theoretical perspectives which provide a 'best fit' for the study will be explored. The chapter also details how personhood and ways of being inform the aim of the study, in uncovering the reality of the participants' experiences. The philosophical, reflective nature of the chapter enhances the consistency of approach between defining the research question, aims and objectives, and adopting a methodology to answer that research question.

3.2 EPISTEMOLOGY

Philosophy has its roots in Ancient Greece, where Aristotle proposed the idea of two types of knowing – what we know ourselves (the art of knowing); and what is considered to be fact (theoretical knowledge) (Aristotle, 1955, p.29). These are known as ontology (what is reality), and epistemology (how do we know what we know). The philosopher goes on to claim that while knowledge may be accepted as truth, it is understood by all creatures in the way that is most meaningful to them (p.180). Plato argued that being fixed on a true reality (theory) meant failing to understand the reality of men's lives (practice) (Plato 1935, p.213). In the

15th and 16th century explorers began to discover new parts of the world (Curley 2013), and to observe the behaviours of previously unknown cultures and societies. As the discipline evolved, philosophers, such as the 19th century French philosopher Comte, advocated empirical observation (Comte 1855, p.33), arguing that to make sense of the world required hypothesis testing. As a result, he is credited with the development of positivism. Kant (1981, p.19) rejected this paradigm, arguing that total objectivity was not achievable in social sciences. He claimed that autonomous beings could be directed to act in a certain way, but this did not make it a fact (p.xi).

3.2.1 Critical Social Theory

Normative perspectives such as Critical Social Theory originated from Marxism, and feminism, reflecting the oppression of sections of society. It is consistently linked to the Frankfurt School, of which Habermas was considered a protagonist. According to Müller-Doohm (2017), this association is misleading, because the Frankfurt School was merely a label. It was given to a group of researchers working at the Institut für Sozialforschung, implying it was not a research community. Russian, Lev Vygotsky (1896-1934), who developed the theory of Social Constructivism and Brazilian, Paulo Freire (1921-1997), known for his Pedagogy of the Oppressed, were also critical social theorists.

Brian Fay (1987) proposed two aspects to Critical Social Theory. Firstly, that which focused on developing and understanding a theory of society, as in the original theory development. Secondly, as a study of the science of society, which Fay termed '*critical social science'* (1987, p.5). He argued that critical social science comprised three elements:

Enlightenment: a recognition of the roles society has laid down for individuals/groups. Through a process of critical reflection, these parties develop a desire to change their situation.

Empowerment: the education of the oppressed and their capacity to change their situation.

Emancipation: the recognition by individuals/groups of their reality. They now possess the autonomy to determine their own existence.

By exploring the underlying social structures that lead to oppression or the development of societal norms, researchers can shed light on certain societal and political contexts. Benton and Craib (2011, p.48) point out that such research may be influential in informing social policy, but reference Popper's caution to ensure this is related to small-scale reform (Popper 1957, p.61). Sociologist Karl Popper (1902-1994) believed in the value of observation, but argued it was not without bias, and therefore should not be used in isolation (1957, p.53). He advocated a move from an epistemology that required the investigation of a hypothesis to one of interpretation and context. The aim was to provide insights on the *how* and *why* of participants' lives (Gomm 2008, p.271), by adopting a holistic approach to understanding the day to day reality of groups or individuals

(Roper and Shapira 2000, p.5). As a scientific method of understanding the social context under study, observation provides insight into that social world. It cannot however, present a universal, taken for granted, understanding of that same world. Using other methods to support observation can enhance how meanings from that social world are interpreted (Balsvik 2017). The application of Critical Social Theory makes studying how power is balanced within one social construct possible, with Lapum *et al*. (2012) describing the links between power and identity in the social world, as "*liberative or oppressive*." Fay (1987, p.26) asserts that critical social science which uses scientific, critical, practical and non-idealistic processes to uncover power imbalances, may be linked to changes within one or several social constructs.

Understanding self comes from reflecting on the world we belong to, and the influences brought to bear, which shape our understanding of power and oppression (Lapum *et al*. 2012). As a result, any research into social worlds, including that of healthcare, must accept the multiplicity of voices and experiences. Nelson (2012) argues, that recognising nursing is more than "*good work being done by good women*" leads nurses towards a better understanding of their role. It also enhances the value of that role through professional development, and through reflection, identifies their contribution to the health and wellbeing of their patients. No single construction can be developed in isolation; any interpretation should evolve from an acceptance of the influence of culture and context. That acceptance may manifest itself through positivism, described by Williams

(2003, p.11) as scientific social research using observation to validate measurable findings. The alternative post positivist or humanist approach, adopted by Popper and Thomas Kuhn, moves away from an epistemology which requires the investigation of a hypothesis to one of interpretation and context.

3.2.2 Culture and Context

Habermas' theory of communicative action (Habermas 1984) looks at the world as if it is divided in two – one world is 'systems', the other is the "life-world" (Nunes *et al*. 2016). These worlds coexist interchangeably, and this is evident in healthcare, where organisational processes support the delivery of healthcare to disparate patients with their own social reality. The increasingly challenging healthcare environment may result in the life-world, as described by Edmund Husserl (Welton 1999, p.353), being subsumed. The system world takes over in order to get things done as quickly as possible, in light of the increased demand. Habermas' theory provides a basis for discursive decision-making in healthcare. It uses the patient's three life-world dimensions of objective, subjective and social worlds in conjunction with health professionals experience of systems as well as their own life-world experiences. This may inform patients' own values and beliefs in turn, influencing their decision-making through, what Walseth and Schei (2011) describe as "*respectful dialogue."*

Lapum *et al*. (2012) describe having to live Critical Social Theory through inward reflection to enable looking outwards. This reflective and reflexive practice takes account of how individuals understand their world. During Lapum *et al's* (2012) study, participants began to appreciate how their own cultural and familial influences had shaped their perceptions of the world. Those cultural contexts also influenced how they viewed nursing, as they arrived with a view that oppression was normal. Bourdieu (1989) refers to this as habitus, "*a system of schemes of production of practices and a system of perception and appreciation of practices."* This societal understanding of how things work in this context may appear universal but may only be truly understood by those in positions of power. Adopting this contextualist approach acknowledges there is more than one way of knowing things. According to Braun and Clarke (2013, p.30), this knowledge changes as the understanding of the social and cultural contexts influencing that knowledge change.

Both Bourdieu and Habermas were hermeneutic philosophers. They argued that using Critical Social Theory allowed people to understand how their social reality had been distorted by their own perceptions. By understanding the influence of their own beliefs and values, they could come to a clearer understanding of a legitimate social reality (Kim 2018). As this author points out however, these two philosophers had different ways of understanding that social reality. Bourdieu believed in a positivist approach through direct observation, while Habermas believed that participating in dialogue provided a greater depth of understanding about

why people act the way they do. Relating this to the culture of healthcare enlightens practitioners to begin the process of emancipation, by engaging them in enabling their patients to express their vulnerabilities in a safe space.

3.2.3 Space

Space means many things. It describes the physical location where care happens (Reay *et al.* 2017). It is also an embodied experience of life happening (Beyes and Steyaert 2012). Lefebvre (1991) describes space as the philosophical location of ontological and epistemological understanding. It is also perceived to be the distance needed from the data to appreciate what is being said (Corbin Dwyer and Buckle, 2009); and it can be a social structure within which to experience daily living (Bourdieu 1989). In the context of space, social order is produced and constructed by the actions and practices of people within the context. Interpreting the space in this study focuses on navigating the space, following Lefebvre (1991), who advocates understanding not only the objects within a space, but how relationships function and impact on the space. He claims that there are many influences which impact on the understanding of the social context of space.

Some authors have used the concepts of space and person-centred care to reconceptualise “person-centred space” (Rushton and Edvardsson

2017). Vygotsky describes how children's developmental processes are internalized through interaction with others (Vygotsky1978, p.90), otherwise referred to as "artefacts" by (Marginson and Dang 2017). This can also be used to illustrate how, within healthcare, the patient's social reality and the reconstructed reality of an acute care ward for example, merge for that patient. For older people with cognitive impairment, for whom the acute ward space can be a frightening and impersonal environment, this is particularly relevant. Gesler *et al*. (2004) suggest there is still much to learn about what makes places conducive to health and healing for both patients and staff.

3.2.4 Pluralist Ways of Knowing

Constructivism is a theory about learning, according to Kang *et al*. (2010), and describes a dynamic, relational process between teacher and student. Piaget influenced how this theory is understood. As Bruner (1997) explains, Piaget emphasised the influence of inner reflection of knowing on learning through logic. Meanwhile Dewey's theory of active learning advocated democracy and collaborative learning (Hopkins 2018). While these theorists were focusing on education, they have also informed the way healthcare staff think about learning, through collaboration (Chadwick 2012; Manley *et al.* 2014). Understanding the world based on constructivism means understanding what is already known about a subject and how it is made sense of (Kang *et al.* 2010). Within healthcare there are multiple realities, with individuals working to their own reality,

within the reality they are experiencing at that time. While staff and patients share realities around the environment, or care delivery for example, they also have their individual realities which may cause them to view things differently.

Social Constructivism is grounded in work by Vygotsky, and is, unlike the structured phases detailed by Piaget, more convoluted. Vygotsky believed cultures are subject to adaptation and change, with current behaviours reflective of previous iterations (Vygotsky 1978, p.22). The pattern of constant change often seen in healthcare reinforces Vygotsky's view of the need for "*active adaptation*" (Vygotsky 1978, p.122). Taylor and White (2000) describe this as an understanding that a social concept exists (they give the example of grief). How that concept is constructed is dependent on the cultural rituals (Vygotsky's artefacts), which shape experiences. Understanding how changes made by organisations impact on practice, through the actions of the actors, illustrates how the organisational culture can influence delivery and experience of care.

Within healthcare, Social Constructivism may be evidenced by the degree to which organisational leaders engage with staff to empower them. Staff may acknowledge a level of engagement from leaders, but it is the depth of that engagement that influences how staff perceive its effectiveness. A systematic review carried out by Cummings *et al*. (2010), shone a light on leadership and how cultures empower or disempower staff to engage with

change. Meanwhile Luxford *et al*. (2011), provide further evidence of the importance of strong, committed leadership. Clark (2018) describes how Social Constructivism promotes learning through social exchanges, although Taylor and White (2000) argue that looking at things from different perspectives can cause conflict. Transformational leaders are those who engage with staff in emancipatory and collaborative ways to understand disparate opinions, to create new knowledge from what is already known (Harris and Cohn 2014).

3.2.4.1 Ways of knowing as a guiding epistemology

Reflecting on these philosophical theories illustrates the plurality of ways of knowing. The current study is concerned with understanding the reality of staff and patients' experiences in a specific healthcare environment. This would suggest that Critical Social Theory, with elements of critical social science, communicative action, and Social Constructivism, would provide a platform for the methodological principles of the current study **(Table 1)**.

Habermas' theory explores systems and the life-world, which provides a lens with which to study the impact of an organisational change on staff and patients. Learning from current knowledge and generating new knowledge reflects Vygotsky's theory of Social Constructivism, with early evidence from the literature of a need to develop the knowledge base

around the single-room environment. Finally, Freire's work on oppression resonates for this study because, while the focus is on the experiences of multiple actors, it is accepted that the nursing workforce will be the most significantly impacted of the professional groups. This acknowledgement comes from recognising that they are present in the environment at all times and work most closely with the patients. Nursing is perceived to be an oppressed group, with Purpora *et al.* (2012) reporting the influence of negative hierarchical structures, regardless of the physical environment in which they work.

Theory	Constructs
Critical Social Theory	Raising the consciousness of the oppressed (Enlightenment) (F)
	Enablement and motivation to change (Empowerment) (F)
	Understanding of previous experiences and behaviours (H)
	The balance of power (Fr)
	Critical reflection to promote liberty from oppression (Fr)
Social Constructivism	Draws on sociology and anthropology to understand personal behaviour (V)
	Grounded in the philosophy of internal relations (V)
	The dominant role of social experience in human development (V)
	Human behaviour is mediated by interactions within groups (V)
	Mediating artefacts are tools of empowerment used to identify a particular culture (V)

Table 1 Ways of knowing from Critical Social Theory and Social Constructivism

F = Fay
H = Habermas
Fr = Freire
V = Vygotsky

3.3 ONTOLOGICAL INFLUENCES

3.3.1 Realism and Relativism

Realism has been considered the dominant ontology within nursing according to Williams *et al*. (2016), reflecting the importance of evidence-based practice, as described by Polit and Beck (2018, p.35). Relativism on the other hand, grounded within social sciences, relates to the beliefs and values of a society as they are understood by the individuals or groups within it (Hirani *et al.* 2018). Hammersley (1992, p.49) reflects on the challenge associated with relativism; if findings are limited to the group or culture where the study takes place, they cannot be valid in any other group in that society, or any other culture. By judging the described experience to be only one version of that world, it is not possible to generalise. Others, such as Hirani *et al* (2018), feel this reflects the science and art of nursing, where multiple factors have to be considered when delivering care.

Increasingly, researchers (particularly in healthcare), have moved towards a relativist paradigm, trying to understand health and disease within a range of influences and behaviours. Anjum (2016) argues that there is a paradigmatic shift away from evidence-based medicine (EBM) towards person-centred healthcare. Norris (2017) disputes this view, claiming that EBM is the realist approach expected by patients seeking treatment. Price *et al*. (2015) had previously argued that in the current healthcare climate

of an ageing population with multiple comorbidities, both realist and relativist approaches are required to ensure optimal patient care. While the relativist paradigm has influenced the development of person-centred practice, realist evaluation seeks to provide empirical evidence of the impact on care and experience. This was evidenced in the work of Slater *et al*. (2017), who developed an inventory for measuring person- centred practice through self- assessment.

Flaming (2001) argues that in the very act of carrying out research, researchers are realists, either qualitatively or quantitatively. They subscribe to the generalisability and transferability of their findings to make them relevant and acceptable to the wider scientific community. He goes on to argue that this is particularly perilous in nursing, where research findings may be used at the expense of experience and the ‘art’ of nursing as described by Carper (1978). Rehg and SmithBattle (2015) also argue the importance of recognising ways of knowing which include experiential accounts of healthcare. It would appear therefore, that there are contradicting views on how to apply realism and relativism within a nursing research context, and neither appeared to present a good ‘fit’ for this study. The application of subtle realism presents a middle way between positivism and relativism, which would appear to be more appropriate for the current study.

3.3.2 Subtle Realism

Post positivist researchers have attempted to reconcile the tension between positivism and various forms of relativism. Weir *et al.* (2010) acknowledged the real existence but infinitive complexity of the social world, that can only be known through the focused collection of evidence. Scott and Orlikowski (2013) recognised that all knowledge is always limited, open to being proved false, and requires constant reflexive elaboration. In trying to address this challenge, Hammersley (1992, pp.50-

51) expounded the epistemological idea of subtle realism **(Table 2)**.

1. Validity redefined as confidence
2. Reality is independent of the claims social researchers make – no certainty that any knowledge claim is true
3. Represents reality in its own terms.

Table 2 Key elements of subtle realism *(Hammersley, 1992, pp.50-51)*

According to O'Reilly (2012, p.223), adopting this approach means acknowledging the presence and influence of the researcher; reflexively considering the influence of the researcher's personal experiences on the interpretation of the data. While this approach has received some criticism, particularly in its' opposition to the discovery element of field work (Hillyard 2010, p.9), and in the perceived further dilution of qualitative research theory (Seale 1999), both Angen (2000) and Gerrish (2003, p.82) have identified its possible application as a foundation for validation.

The objectives of the current study are to understand the experience of staff and patients in the single-room environment. Evidence from previous literature would suggest the data will reflect mainly the patient experiences as they are likely to be more affected by the changes than the staff. For the staff; the culture, systems and processes would be unchanged, but for the patients; the new environment would be very different to what they were used to or expected. A subtle realist view would be based on *confidence* about the findings; to describe the impact for both patients and staff. Key to this is being true to the findings from the study; reflecting the complexity of the data, while acknowledging that this reality relates to the contextual factors present during the study. Atkinson and Morris (2017) describe understanding the context of the field, while relating the reality of participants' experiences. This serves to enhance the degree of confidence around the eventual findings through meaningful engagement and mutual respect. Corbin Dwyer and Buckle (2009) argue that taking a less didactic approach, by acknowledging the 'space between', allows researchers to reflect on their influence as an insider and their objectivity as an outsider, within the same study. The benefits and challenges of the insider/outsider dichotomy as it relates to the current study are explored further in **Section 4.5.1**.

3.3.3 Interpretivism

Interpretivism underpins social research (Grant and Giddings 2002). It has its' roots in philosophy and anthropology - making sense of reality and

attaching meaning to it, through understanding human experiences. Part of that understanding centres on accepting the multiple realities of the individuals and context being studied (Ryan 2018). Context is at the heart of interpretivism and a desire to understand culture as it is experienced by the participants *and* the researcher. According to Voyer and Trondman (2017), acknowledging the decisions made by the researcher is part of an interpretive reflexivity. The reader can appreciate the nuances that may have impacted on the researcher's interpretation if there is clarity around the researcher's understanding of the culture.

For interpretivists it is essential to see humans as actors in the social world rather than as simply re-acting as objects in the natural world. Fay (1996, p.114) argues that interpreting human behaviour requires an understanding of the context of a particular society or culture, with an emphasis on empathetic understanding. This thinking illustrates how an ethnographic approach may be used to explore person-centred practice. Development of tools such as the WCCAT (McCormack *et al.* 2009), illustrate how the principle of direct observation of a group can be underpinned by a structure which links the findings to theory and facilitates participant engagement in action planning.

Using an interpretive approach within ethnography draws on experiential knowledge from participants and from researcher participation in the field, according to Savage (2000). Denzin (1999) celebrates

interpretivism as a return to a minimalist form of understanding of how people act and react in their daily lives, leaving aside complex theories and jargon. Meanwhile, Voyer and Trondman (2017), take issue with Reed's work on interpretation in his book: *Interpretation and Social Knowledge* (Reed 2011). They argue about the reality of trying to interpret individual actor's actions. They claim it is more beneficial to describe the individual's actions and the social processes which impact those actions together, to capture the multi- faceted meanings within the study. Reed (2015), in response to criticisms of his work, says that the most significant issue for interpretivists continues to be the relation between comparison and causality. He argues that creating 'cases' within ethnography is a more robust form of interpretation. Studying a series of ethnographic cases, describing experiences from the same line of inquiry, but with a different theoretical interpretation, allows for greater explanation and comparison. Building up a body of knowledge around the single-room environment, using an ethnographic approach, with separate studies recognised as 'cases', would be such an example. Paillet (2012) and Alshahrani *et al*. (2018) demonstrate how multiple variables of processes, actors and social realities impacting on care delivery can be captured through interviews and observation to illustrate the complexities of care. The complexity of the component parts of ethnography may not always lend themselves to being part of a nested case approach, and this itself may be worthy of further research.

Induction also relates to thematic analysis where meanings are drawn from data (Rudnick 2014). A more complex form of inductive reasoning is

suggested by Hammond (2018), claiming that ethnography can be viewed as a means of theorising; researching a “problem” using a different approach to gain a new perspective. By gaining insight into the impact of a single-room environment on the experience and delivery person-centred practice, it may be possible to develop the thinking around the constructs that inform the person-centred practice theory.

3.4 WAYS OF BEING

3.4.1 Personhood

“…the nurse must distinguish between the idiosyncrasies of patients. One likes to suffer out all his suffering alone, to be as little looked after as possible. Another likes to be perpetually made much of, and pitied, and to have someone always by him.”

Florence Nightingale (1860, p.66)

In the current study, understanding personhood applies to that of participants and the researcher. The concept of what it means to be a person has been debated, defined and redefined by philosophers and ethicists (Kitwood and Bredin 1992; Sofronas *et al* 2018). Ethically, the definition of what constitutes life, and the complexities relating to end of life raise significant moral challenges for health care. These are described by Polkinghorne (2004) in a reflection on moral issues around early embryos, and Alsuwaigh *et al* 's (2015) study on how cancer patients understand

personhood towards the end of their lives. McCormack and McCance (2017) reflect on what personhood means, describing it as a way of interacting with the world, holding dear to what is meaningful to us as individuals, recognising the feelings and values that make us unique. Philosophically, while Kierkegaard's (1994) existentialism can be challenging, he characterises the demands of working with what matters to others, even when they struggle to voice their inner feelings. Respecting others' values and beliefs, speaks to a sense of authenticity, derived from individuals' own sense of values, which determine how they think, act and understand self. Fay (1996, p.34) reflects on the self as capable of '*potentiality'*. The self is not inanimate. It can become more than what it is through self-consciousness, creating curiosity and a desire to understand the world.

Interpretation is a key element of gathering knowledge. How we understand that knowledge depends on our beliefs and values, but knowledge can change our understanding, and as a result, the way we view ourselves. This sense of self is integral to the idea of personhood, underpinning the practice of person-centredness. It also reflects the principles of person-centred research, to humanise healthcare by expanding the knowledge base around person-centredness. This complexity challenges person-centred researchers who must achieve their own understanding of what it means to be a person, in order to select the most appropriate philosophical framework for their research (Dewing *et al.* 2017, p.25).

In contrast, philosophers such as Kant believed personhood should refer to "*rational beings*," (Kant 1981, p.36). He claimed that *person* is an objective concept, existing regardless of the actions of others, and deserving respect as such. Others have explored an interesting concept of '*artificial personhood*' to indicate those who speak for others (Wolgast 1992, p.4). The author would seem to suggest this artificiality results from persons acting for others in an objective way. This illustrates the importance of context, understanding how organisations, and individuals representing them can influence the decision-making of other individuals. Within healthcare this might translate to doctors advocating particular forms of treatment, which might be delivered by nurses, with the consent of patients. Liaschenko (1995) points out the moral distress such a term might engender, suggesting a hierarchical structure where nurses are perceived to be acting for doctors. This has broader implications for the current study, where staff generally are having to convey decisions made by the organisations to patients and visitors, such as how to *be* in a single-room environment. This resonates with Kitwood and Bredin's (1992) idea of personhood, with high-quality care reliant on giving equal weight to patients', staff and carer's identities as persons. These authors recognise how relationships between people are fundamental to the understanding of personhood. More recently, Cooke (2018) undertook observations and interviews with staff and found that "being known" and "being valued" by their organisation, impacted on staff's ability to care for others.

In understanding what it means to be a person, there is a need to be cautious about assuming people will respond similarly to every situation. Tyreman (2018) describes how people may react differently to the same illness during different hospital admissions. In the same way, researchers need to be aware of the impact of differing behaviours during data collection. Participants for example, may provide answers during an interview which may not be borne out by observational data. This happened in Coughlin (2012), where patients' perception of nurses' response times were not borne out during observations. Researchers need to be aware of the potential limitations of using a single source for data collection, with Aurini, *et al.* (2016, p.85) reporting the risk of "*under or over-reporting behaviours*."

3.4.2 Being a Nurse

Carper (1978) describes the *Fundamental Patterns of Knowing as:*

- The science of nursing
- The art of nursing
- Personal knowledge
- Ethics of nursing

As discussed in the previous section, the notion of virtues can be applied to both the art and ethics of nursing. Both Bennett Jacobs (2013) and Allmark (2017) identify the central core of nursing practice to be to support human flourishing. Supporting staff to fulfill their potential (McCormack and

Titchen 2014); researchers working with participants to have their voices heard (Lincoln and Guba 2000); promotion and protection of health and well-being (Hewitt 2019), illustrate the myriad ways healthcare professionals can influence human flourishing. Aristotle claimed that those who attain the virtue of happiness can withstand misfortune (Aristotle 1955, p.222). In modern day health care, this would suggest those who are empowered to manage their condition, or achieve resilience within demanding social systems, will be able to maximise their individual potential for the benefit of themselves and others.

Garrett and Cutting (2015) argue that while Carper's theory has four distinct elements, they are difficult to test empirically, since they are all relative. While Srulovici and Drach-Zahavy (2017) explored missed nursing care, and Pati *et al*. (2015) explored the impact of decentralised nursing stations, providing empirical evidence of what nurses do has been difficult. For Roach (1987, p.47), caring is a way of being, relating to our capacity to care in a tangible way through specific behaviours. For professional carers within health systems, there is an expectation that they will be both caring and competent so the attributes of prerequisites and all of the person-centred processes within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** illustrate this union. The work of Andersson *et al.* (2015) confirmed that nurses believe caring is person- centred when "*the person behind the patient*" is seen. Recent work by McCance *et al*. (2015) has developed a set of key performance indicators (KPIs) for nurses to support evaluation of the art of

nursing in a much more robust way. Direct observation and interviews with staff and patients are integral, providing rich data on what it means to be a nurse, and what patients perceive to be important in their interactions with nurses. Andersson *et al*. (2015) describe caring as a value nurses have, evidenced by concrete acts. This has led to nurses as researchers seeking to understand experiences and how they can inform nursing practice (Gattinger *et al*. 2013; Oxelmark *et al.* 2018).

3.4.3 Being a Researcher

Enlightenment and empowerment in critical social science are predicated on knowledge acquisition. The prerequisites within the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)** of being professionally competent; clarity of beliefs and values; and knowing 'self' also contribute to the emancipation of staff through knowledge and understanding of their own, and others' realities. Ontological duplicity as described by Weber (2017), recognises the challenge of PhD researchers working in both an academic setting and the study setting. Reflecting on the experience of being a researcher, while simultaneously capturing the experiences of the study participants, requires both objective and reflective skills which speak to the competence of the researcher, identified in **Section 4.11.4**. Hammersley (1992, p.33) also describes a sense of *'making the familiar strange'*, where commonplace things are seen in a new light, resulting in new knowledge. This reflects the particular challenge for healthcare practitioners researching in their own

environment, to avoid making assumptions based on their a priori knowledge. Enlightenment comes from understanding things differently, resulting in empowerment through new knowledge. Simmons (2007) describes having to be honest with participants who felt they shouldn't have to explain things she should already know about. By clarifying her outsider role as a researcher, she empowered participants to be explicit about their experiences, resulting in enlightenment for both parties.

Person-centred researchers such as Jacobs *et al.* (2017, p.53), also employ strategies demonstrating respectfulness, empathy and communication with the participants. Such approaches empower participants to reflect honestly on their own social context. This authentic engagement is made more meaningful when it occurs, not only during the data collection, but through timely feedback and updates on the progress of the study and the findings. Feedback can happen throughout the data collection or when the data has been analysed, depending on the paradigm being adopted. Sharing knowledge in such a way facilitates elements of enlightenment, empowerment and emancipation by the giving and receiving of new knowledge. This happened at the end of Isaksson and Börjesson's study (2017), when the researchers came up with three design concepts based on the data they had collected. These were then discussed with the participants to plan further change activities. Public participation in research, including feedback of research findings, is now expected to be addressed by healthcare researchers in the United Kingdom (UK) as an indicator of impact. For those

researchers unused to providing feedback to participants this becomes part of their own emancipatory learning in becoming a competent researcher.

3.5 CHAPTER SUMMARY

This chapter reflects the philosophical theories underpinning a co-creation of knowledge about the balance of power using multiple realities. As an ethnographer who believes in multiple realities, and a nurse who worked in, and understands practice, I sit very clearly in McCormack and McCance's world of personhood. Elements of Critical Social Theory reflected enlightenment and working together to clarify knowledge about the reality of delivering and experiencing person-centred practice. This was combined with elements of Social Constructivism to understand the impact of the environment as an artefact on that experience. By drawing on sociological and anthropological methodologies the research can be grounded in a philosophy of cultural relations. Using an interpretivist paradigm based on subtle realism provides a platform to explore how the single-room environment has influenced the delivery and experience of person-centred care. Key to understanding the findings of this study will be an acknowledgment of the complexity of acute health care; the differing beliefs and values of the people who interact within it, and the impact of outside influences such as policy directives, and capacity and demand issues.

CHAPTER 4: METHODOLOGY

4.1 INTRODUCTION

On reviewing the literature, much of the empirical research on the single-room environment to date has used mixed methods, surveys or interviews. This study uses an ethnographic approach to explore the impact of the 100% single-room environment on the delivery and experience of person- centred practice. A description of the methods used and the rationale for their use will be detailed in this chapter. The integration of the WCCAT (McCormack *et a*l. 2009) **(Appendix 2)**, to align ethnography with person centred research will be discussed. Recruitment of, and engagement with, participants, and collection and analysis of the data will be described. The challenges inherent in undertaking ethnographic research in an acute care environment will be considered, particularly the methodological issues of sampling, gaining access and ethical considerations. Ensuring rigour in qualitative research has received considerable attention recently and the approaches adopted for this study will be reviewed (Johnson and Rasulova 2017; Rettke et al 2018). Throughout the chapter, reflexivity and reflection feature at various points, illustrating how embedded this process needs to be in an ethnographical study.

4.2 RESEARCH QUESTION

How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

4.3 AIM AND OBJECTIVES

The aim of this study is to explore the influence of a 100% single-room acute- care environment on the experience of person-centred practice.

There are three objectives:

1. To explore, from the perspectives of patients/families, the experiences of care within a single-room, acute hospital environment.

2. To explore, from the perspectives of staff, the experiences of working within a single-room, acute hospital environment.

3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

4.4 ETHNOGRAPHY

An explorative ethnography approach will be used for this study. This approach supports investigation and interpretation of a social organisation and culture, studied in an everyday context with a defined population.

4.4.1 Characteristics of ethnography

Ethnography is "*a science about humans by humans*" (Reed 2017). It was chosen for this project as it is commonly employed to study the natural

environment and illuminate the context in which activity occurs. It can be used to study the impact of an environment on the everyday reality of a defined population within a social organisation and culture (Pereira de Melo *et al*. 2014). Ontologically, it recognises that participants and researchers may be working in a shared reality but will have their own reality within that.

Pfeilstetter (2017) identifies multiple realities for consideration within an anthropological context, such as *"psychological, social, biological, historical, geographic, linguistic, economic, political, and religious."* Other authors have identified the importance of a coexistence between ethnography and design, making it apposite for use in new healthcare settings (Isaksson and Börjesson 2017). Feddersen *et al.* (2017) illustrated how ethnography can facilitate a greater understanding of the complexity of societal influences on individuals. They used a meta-ethnography to understand the impact of chronic illness on mothers' ability to work. Such a methodology could be also be used to explore the introduction of a new physical acute care environment, as a result of a strategic policy decision.

The theoretical principles of ethnography viewed through the concept of practice are described by (O'Reilly 2012, p.6) as:

- Understanding social life as the outcome of the interaction of structure and agency through the practice of everyday life
- Examining social life as it unfolds, including looking at how people

feel, in the context of their communities, and with some analysis of wider structures, over time

- Examining, reflexively, one's own role in the construction of social life as ethnography unfolds
- Determining the methods on which to draw and how to apply them as part of the ongoing, reflexive practice ofethnography.

Within anthropology, early ethnographers such as Rivers (1901) and Malinowski (1922), formulated theories around previously unknown (to Westerners) cultures. By analyzing the data, they collected, often over several years, they attempted to explain the lives of diverse Pacific Island communities. This early work influenced how ethnographers understood and performed their research for decades. Using an interpretivist approach, ethnographers generally expected to work in the field, over long periods of time to understand culture and context. While this is still often the case, particularly among traditional ethnographers, more recently, researchers have taken to exploring other ways of understanding culture and context through feminist approaches (Schrock 2013); critical ethnography (McMahon and McPherson, 2014); focused ethnography (Cruz and Higginbottom 2013); and autoethnography (Mudge *et al.* 2014). Whatever approach is adopted, the challenge of ensuring trustworthiness in an interpretive paradigm lies in an honest account of the researcher's own beliefs and values, and their influence on how the participants' experiences are portrayed (Lichterman 2017). This is known as interpretive reflexivity. By documenting the processes used during the analysis process, researchers can accentuate their beliefs and values, and

make their decision-making more transparent to others.

In the past two decades, ethnography has been increasingly employed in the healthcare environment to study the social groups within (Lewis and Russell 2011; Atkinson 2013). Such an interpretivist approach allows a more intimate exploration of the lived experience of the participants, facilitating a greater understanding of the complexity of societal influences on care delivery, such as the introduction of a new physical environment for inpatients (Lowndes *et al.* 2013; Feddersen *et al*. 2017). It should be acknowledged however, that ethnography carried out by nurse researchers will often be interpreted through the lens of professional interest. This may result in a distortion of the experience so that it is no longer a "*value-neutral*" analysis (McMahon and McPherson 2014). Despite this, by capturing the complexity of the social world in which care is delivered, ethnography presents a good fit for understanding the experience of staff and patients in a new physical healthcare environment.

There are a common set of methods generally associated with qualitative research, but an ethnographic study should include some form of observation, alongside some combination of participant interviews, focus groups, photography and documentation. This promotes an inductive, iterative process; gathering relational data from different sources to understand relationships.

4.4.2 Ethnography's place within person-centred research

A key tenet of person-centred research is the environmental context of healthcare settings. This approach can be clearly aligned to ethnography, to explore the influence of the environment, and the impact on patients and staff (Wolf *et al*. 2012). Healthcare settings are by their nature, places where persons interact frequently and repeatedly with each other. The commonality of these events can result in over familiarisation, so that the value of the interactions is lost. Observation and interviews/focus groups etc. shine a light on those interactions and explore their authenticity and complexity, to establish the existence of person-centredness in an organisation.

Employing ethnography as a participative methodology, researchers and participants work in concert through the data collection and analysis processes (Nugus *et al*. 2012). By engaging in this participative, person-centred process, the connectivity between research and practice can be clarified and developed, by exploring with participants what is important to them. By actively encouraging participants to reflect on different elements of the data collection, the research findings may influence person-centred practice. This process of connectivity, described as *doing, knowing and being* is key to staff engagement (Jacobs *et al*. 2017, p.52). These authors reflect on how person-centred research empowers all those involved through participation in a joint enterprise to improve services through sharing power. Using a person-centred ideology to reinforce the participative methods in this study supports the understanding of self and

the recognition of person, ensuring the findings resonate with the participants, and making them meaningful to the researcher through reflective processes.

4.4.3 Reflexivity within ethnography

The conundrum for many ethnographers is using reflexivity to clarify one's own social position, while remaining true to what is being seen and heard in everyday practice within the site (Lichterman 2017). By including observation as a data collection tool, nurses can often see what is unseen by those insiders currently working in that environment. Direct observation is considered by some, to be key to differentiating ethnography from other forms of qualitative research (Gobo and Marciniak 2016, p104). Prolonged presence in the study site, and a knowledge of what could/should happen, allows the ethnographer to capture unexpected events (van Dooremalen 2017). Standing back from the situation and reflecting on such events as they occur, or shortly afterwards, can illuminate a practice or culture which many may not be aware of. Consideration must also be given to the risks and benefits of both participatory and non-participatory observation and how that decision might influence the outcomes.

4.4.4 Participant vs Non-participant observation

Observations of practice illustrate the reality of life on these new wards (Catchpole *et al.* 2017). The dilemma during the current study was to

understand what constituted participant and non-participant observation. Ethnography is about understanding the participant's view of the world under study, without influencing that view. One of the principles of ethnography, that aligns it to person-centredness, is the development of mutual trust and rapport between researcher and participants (O'Reilly 2012, p.93). It can be challenging to achieve this when undertaking non-participant observation, with the researcher deliberately maintaining a distance from the participants. However, participant observation provides more opportunities for the researcher to influence participant behaviour, altering the reality as normally experienced.

Preparing for this study involved consideration of whether the observations would be overt or covert; participant or non-participant, as commonly described in the literature (Holloway and Wheeler 2002, p98; Twycross and Shorten 2016). The challenge then becomes: how far to become a participant in what is being observed? The original intention was for non-participant observation, but it became clear that some elements of participation were beneficial. Being clearly present and overtly observing staff, talking to them during quiet periods; but otherwise refraining from interacting with them during the observation periods, meant that while some observations were done from a distance, many involved closer observation. This included observing during a ward round, medicine administration, or when staff were in rooms where the door remained open. Notes of impressions and any such interactions were made for later reflection. All observations were recorded using the WCCAT Observation

tool (McCormack *et al.* 2009) **(Appendix 3)**. This is described in greater detail in **Section 4.8.1**.

4.5 SETTING

The study took place in a new ward block within a large district general hospital in Northern Ireland. The Trust serves a population of approximately 361,329 and covers an area of 425 square miles across three local government districts. Acute services include 1 acute hospital; 2 local hospitals; 2 community hospitals. Local community services such as children centres, health centres, children's and older people's residential accommodation are also provided. The Trust is also responsible for health services in the 3 prisons in Northern Ireland. Approximately 10,000 staff are employed, with an annual budget of approximately £600m. Life expectancy within the Trust is the highest in Northern Ireland. Current and predicted population trends are illustrated in **Appendix 4**.

A building programme is currently underway to replace all the old hospital buildings on the study site with new facilities. As a result, medical and AHP staff have an additional walking burden until all the transitions are completed. The new inpatient block contains 12 adult wards, laid out in an 'L' shape, providing care for patients with in-hospital surgical and medical healthcare needs **(Appendix 5)**. There are a total of 288 single bedrooms, all with ensuite bathroom facilities. There is also a new day

surgery department, including: 4 state-of-the-art operating theatres; an endoscopy suite and support services; a new pharmacy department; and café.

4.5.1 Organisational Support

Building rapport and trust is essential for gaining access to a study site. Understanding the importance of having an outsider/insider (emic/etic) role aids working up and down the organisational system (Simmons, 2007). For nurse researchers performing an ethnographic study in a health care setting, the insider/outsider duality of the researcher can be an advantage or a disadvantage. As an insider, nurses are well placed to understand the setting and the culture, being immersed in the culture they want to study (Jones and Smith 2017). As a result, gaining access to the site, working with gatekeepers and approaching the participants may be less problematic than for other researchers (Crowhurst, 2013). Additionally, understanding the system can be used to arrange meetings with senior managers as key stakeholders **(Figure 3)**.

Organisational Leaders	**Operational Leaders**	**Ward Teams**
Director of Nursing	Clinical Managers	Ward Sisters/Charge Nurses
Director of Hospital Services	Clinical Coordinators	Registered nurses
Assistant Directors for Medicine & Surgery	Research Department	Medical staff
		Allied Health Professionals
		Support Services

Figure 3 Stakeholder Groups

As an ‘outsider’, the nurse researcher may be stepping away from clinical practice. During this study there were changes in personnel, which, from an outsider perspective (as a researcher), were unknown. Nevertheless, previous insider knowledge (as a nurse) of those positions at this high level of the organisation was beneficial in obtaining positive support for the study. From both perspectives, acknowledging personal beliefs and values supports attempts to avoid making assumptions based on previous experience; and while recognising the context, strives to relate the reality of participants’ experiences (Atkinson and Morris 2017).

Agreeing regular updates on the progress of the study with the senior management team was easier as the researcher already had a relationship with the team. Knowledge of the patient participation teams related to the study site enabled meaningful engagement with patient representatives at an early point in the study to agree their level of involvement. The key stakeholders for this study had already anticipated how the findings can be used to inform the post project evaluation of the new building. In addition, they expected the learning from the findings to inform further work in the second new building due for completion in 2020. This is in keeping with another key principle of ethnography which is learning from people within the culture (Freire 1972, p.22).

4.6 SAMPLE AND SAMPLING PROCEDURES

4.6.1. Recruitment of staff

Inclusion Criteria for staff:

All staff working in the wards, employed by the participating organisation in either a permanent or temporary capacity.

Exclusion Criteria for staff:

- Students were excluded because they were considered to be still developing their understanding of person-centred practice.
- Any staff member who did not provide written consent.
- Any member of staff working on the participating wards for less than one week.

The number of staff available to participate in this element of the study was as follows:

- Nursing staff 100 per ward
- Medical staff 20 per ward
- AHP staff 10 per ward
- Pharmacy staff 3 per ward
- Support Services 10 per ward

Meetings took place with all the Ward Sisters in the new block to explain the study in greater detail. This gave them an opportunity to talk about the study and identify any initial concerns they had. They discussed some of

the more practical aspects such as which wards would be involved and what staff preparation was required. Three Ward Sisters self-selected their wards to participate in the study and meetings were arranged with those three individuals. This time was used to consider the following: preparing staff for the study; the timing of the observations of practice; when the data collection would start, and the breakdown of each observation period.

The time with the Ward Sisters also provided an opportunity to begin to understand the context in which the study would take place. Understanding the context as it relates to person-centred practice meant understanding not only the physical environment, but the philosophy of care (or beliefs and values) on the ward; leadership; role modelling; support and professional development opportunities. Appreciating the climate in which staff work, painted a picture of the ward cultures in the study settings.

Several preparatory visits were made to the participating wards to talk with staff about the study. Staff were able to express any concerns they had about the study and share ideas they had about the recruitment of patients. Written information on the study was made available for staff **(Appendix 6)**. All staff wishing to participate in the observations of practice were required to give written consent **(Appendix 7)**.

4.6.2 Recruitment of Patients/ Family members/Carers

Inclusion criteria for patients:

- All patients over 18 years who were in the participating wards at the time of the study.
- Carers/family members of those patients who were unable to indicate consent to participate themselves.

Exclusion criteria for patients:

- Patients who could speak English and declined to use an NHS approved interpreter.
- Patients aged between 16-18 years who may still be defined as children but were in adult wards for specialist treatment.

Patients were also informed about the observations of practice and reassured that only staffs' actions would be recorded. Up to three patients from each area would be recruited to provide a range of patient views across all the wards (total n = 9).

A key component of person-centred practice is the patient voice (Epstein *et al*. 2005; Marshall *et al*. 2012). Generating evidence from patients contributes to person-centred, evidence-based practice, making it more meaningful (McSharry and Cox 2008, p. 298). Posters were displayed in all the participating ward areas to inform patients and family members of

the study (Appendix 8). When the time came to begin the interviews, staff were asked to distribute Patient Information Sheets inviting patients/family members/carers to tell their stories **(Appendix 9)**. The information was published in an easy to read format. Staff were also asked to identify any potential participants that could be approached directly about the study.

Participants were selected using purposive sampling (Etikan *et al.* 2016). This encompassed all inpatients on the participating wards who met the criteria and indicated a willingness to talk about their experience. The interviews were opportunistic, with patients and/or their families/carers who were in the participating wards at the time of the study. No capacity assessments were performed on patients. Where there was any question of the patient's cognitive ability to give consent, staff who knew the patient best and the patient's family/carers were consulted as to whether the patient should be approached to participate. This reflected the concept of ‘interdependence and connectedness through relationships’ described by Dewing (2002) as a feature of the person-centred process consent. The wards have open visiting (longer/unrestricted visiting hours) for carers/families, so consent could be obtained at the time of interview.

Potential participants who did not speak English would be offered the services of an interpreter. The organisation where the study took place agreed to meet the cost of this service. Such participants would be advised at this point, that it would not be appropriate to use a family member as interpreter, as confidentiality could not be guaranteed. Interpreters used

by the NHS undergo training in interpreting between individuals and professionals and this includes confidentiality and obtaining consent. If confidentiality were to be broken subsequently, the interpreter could be identified, and the issue addressed with his/her employer. If a family member were to break confidentiality, no action could be taken. Potential participants who could not speak English and declined the offer of an interpreter would be excluded from the study.

4.7 PREPARING TO ENTER THE FIELD

4.7.1 Stakeholder engagement

Meetings were held initially with the Clinical Managers (operational managers within each of the Services), as key stakeholders. They were informed of the study and the time was used to discuss ideas for engaging the Ward Sisters in the first instance, and then more generally with staff in the participating areas. Their opinions were sought on how to engage with other groups of staff such as medical, allied health professionals (AHPs), and support services. Engagement with these groups, and their participation in the study would provide a multidisciplinary view of care delivery. Ward selection and publicity about the study was also discussed. Subsequent meetings were held with operational managers across all the multidisciplinary teams. All were supportive of the study and keen for their staff to be involved. Senior medical staff were identified to ensure the inclusion of the medical voice in the study.

4.8 DATA COLLECTION METHODS

The data collection for this study used qualitative methods as presented in **Figure 4**. Each are described in detail.

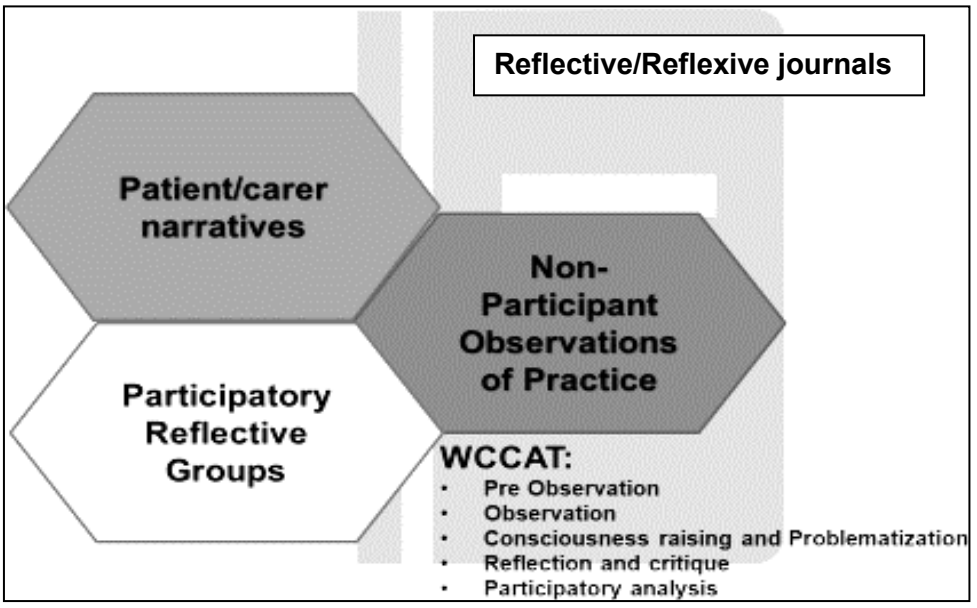

Figure 4 Data Collection methods

4.8.1 Observations of Practice using the Workplace Culture Critical Analysis Tool (WCCAT)

The WCCAT (McCormack *et al*. 2009) has been used by researchers to support Practice Development (PD) work through engagement and reflection with and by participants. Cultural safety and cultural sensitivity have been identified as integral to understanding workplace culture through the values and beliefs of staff (Moss and Chittenden 2008, p174). There is also a recognition that culture includes the macro context, relating to countries, through to micro cultures such as organisations/groups or parts thereof (Schein and Schein 2017, p5). What they have in common is

the impact of the imposition of cultural values and beliefs to preserve common practices (Dixon-Woods *et al.* 2014). In trying to appreciate the impact of the environment on person-centred practice, understanding the culture of engagement and participation *within* the environment is key. Person-centred practice does not occur in a vacuum and changes to the physical environment, as a result of policy directives (macro context), can influence the care environment within organisations (micro context).

Organisations frequently aspire to develop a culture of collaboration and engagement with front-line staff to promote a 'caring' organisation and this is often reflected in their vision statements (Harris and Cohn 2014). However, researchers have found that the reality of measuring such constructs as caring, shared decision-making and authentic engagement, as evidence of person-centredness, is challenging (Hesselink *et al*. 2013; Bridges *et al*. 2017). Using an inductive tool to strengthen engagement with practitioners contributes to clarity of the connectivity between research and practice.

The WCCAT (McCormack *et al*. 2009) can be used to inform engagement with staff; as a prompt during data collection; and to guide participatory reflection with staff as indicated in **Appendix 2**. The tool removes some of the subjectivity associated with data collection, and links ethnography to person-centredness through its participatory and reflective elements, to reduce staff anxiety and to clarify the processes being used. The process

reinforced early engagement with staff and provided a guide to ensure opportunities to speak to leaders and ward staff on the study site as well as the patient user group were maximised. “Testing” the observation tool across the participating wards provided a reason to access the wards and the staff, to begin the acclimatisation process and to enable researcher familiarisation with the tool. Additionally, various observation points on the ward could be tested for visibility.

To illuminate the reality of participants’ experience, the WCCAT (McCormack *et al*. 2009) includes comprehensive observer prompts which acted as a guide, so notes could be made quickly, capturing events as they happened (Laitinen *et al.* 2014). The *questions arising* column was useful for reflection of what was being seen and what might be missing or need clarification. Reflexive exploration of personal feelings could be jotted down and written about in more detail after the observation period, while it was still clear (Gelling, 2014). The observation periods covered 2 hour slots, over a variety of days, to cover 24 hours in total on each ward. This provided evidence of the dependability of the findings around frequently occurring events, and random occurrences. While intensive planning for the data collection took place, unanticipated events did occur and were recorded for further reflection. This is to be expected in an ethnographic study, where events occur within a natural environment and are real for participants at that time, confirming the presence of multiple realities.

The participatory work with the staff is referred to in the WCCAT (McCormack *et al*. 2009) **(Appendix 2)**, as participatory analysis and action planning. However, since this was an ethnographic study rather than action research, this section was adapted to participatory reflexive group (PRG) activities. A group on each participating ward discussed the impact of the new environment in more detail using examples from the observations. This allowed for reciprocity and equality. Staff were able to: hear about the observations; consider how that resonated with them in light of their own experience; and what it might mean for practice (Kragelund 2013). Encouraging participants to ascribe meaning to their actions, reflects the ethnographic principle of looking at how people feel in the context of their community.

The additional guidance in the WCCAT (McCormack *et al*. 2009) around preparing and undertaking an observation clarifies the personal preparation needed by the researcher. This relates to the competence of the researcher discussed in **Section 4.11.4**. Additionally, the researcher must be mindful of confidentiality around the physical process of information recording. This was addressed in this study by spending some time prior to the start of data collection creating codes for all the participants, which were allocated as staff provided written consent to ensure pseudo anonymisation.

Previous authors have identified the potential impact of the “Hawthorne effect” (Srigley et al. 2014), but there is an increasing belief that this may have been overplayed (Goodwin *et al*. 2017). Prior to entering the study site, the researcher needed to consider whether her presence would cause people to act differently. In particular, nurse researchers must be aware of how their background might influence staffs’ behaviour. In this study, the staff appeared to adjust to the presence of a researcher very quickly, which may be due in part to the pre-observation preparatory work **Section 4.6.1**. Reflecting on the vagaries of culture and behaviour, it may be that staff did not change their behaviour because such ways of working were deeply ingrained and could not be changed so quickly. Schein and Schein (2017, p7) refer to this as “*cultural DNA*”. The values and beliefs of a group within an organisation such as a ward team within a hospital can help that group make sense of their world of work. This may lead to that subculture’s views becoming entrenched, so that engaging staff in change can be challenging.

4.8.2 Participatory Reflective Groups (PRGs)

Following each period of observation an informal meeting was planned as soon as was practicable (but preferably within 1 hour of the completion of the period of observation). This time was used to review issues which arose during the observation period (Clarification and Problematisation), providing an opportunity through reflection, to raise staff consciousness. Kragelund (2013) describes this approach as “*obser-view*” where the researcher discusses the findings with the

participants to achieve a deeper understanding of the data. At this point, the discussion focused only on the observational data collected at that time point. In preparation for the PRGs, reflection and critique of the observational notes; review of feedback; and identification of common issues, by the researcher, ensured the PRGs were a collaborative enterprise, enabling staff to reflect on and discuss, the issues arising. An illustration of this process is displayed in **Figure 5**.

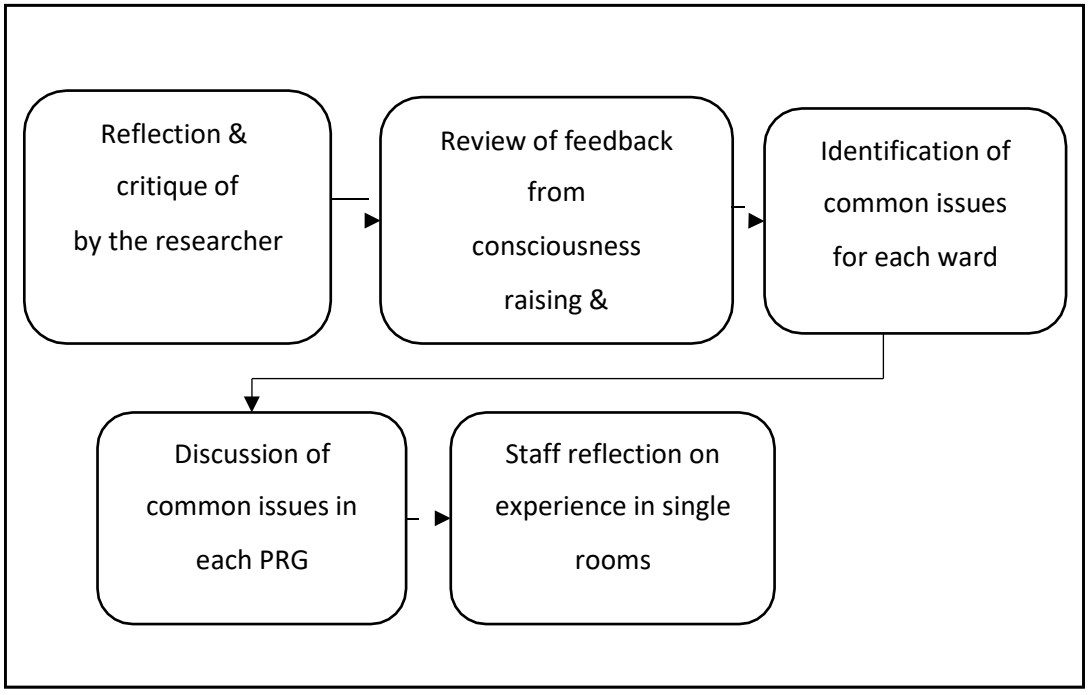

Figure 5 Process for PRG data collection

Additional data was then collected when staff critically discussed the findings in the round, during the PRGs, which followed the observations of practice. They also had an opportunity to reflect on their experience to date in the new wards, adding new data in the form of thoughts and experiences, to what had already been collected by the researcher in the observational data. This participatory approach aimed to engage staff in the

research process and gave meaning to the findings. PRGs were planned with multidisciplinary teams on each participating ward, as part of the participatory process within the WCCAT (McCormack *et al*. 2009) **(Figure 1)**. All staff working in the ward were invited to attend, with a maximum attendance of eight in each group to facilitate engagement and participation in the discussion. Attendance indicated consent to participate. These group sessions were set against the ward off duty roster to ensure the nursing staff who attended had participated in the observations of practice. This allowed more meaningful dialogue around the context of the observational data. Other staff such as medical staff, AHPs and support service staff, who also participated in the observations of practice were invited, to encourage engagement with the multidisciplinary team. Engaging in researcher-facilitated PRGs enabled staff to explore their views of culture and context. The teams were able to explore the relationship between staffs' espoused values about person-centred practice and the reality, as evidenced during the observations of practice.

Ground rules were agreed at the beginning of each PRG. Staff were reminded of the difference between confidentiality and anonymity in relation to the workshops. While the participants were assured that the wards and all quotes used in the final report would be pseudo anonymised, confidentiality was included as one of the ground rules for each group and agreed to by all participants. It was for the group to decide whether everything said was confidential, or whether what was discussed could be talked about outside the group. Staff were invited to reflect on some of the

preliminary findings and participate in a critical dialogue about them. This provided further insight into staffs' beliefs and values discussed in the pre-observation phase, and whether they were reflected in the observations.

The questions focused on, but were not limited to, the construct of the Care Environment within the Person-centred Practice Framework (McCormack and McCance 2017, p.263). Staffs' discussions of some of the observations provided additional data, and gave greater meaning to the findings, because it came from the reflected experiences of the participants. It enhanced the critical dialogue around what was observed and provided validity of the findings for the staff. The groups also gave staff an opportunity to reflect on their experience to date in the new wards within a supportive environment. The PRGs were recorded on a digital audio-recorder to accurately capture what was said as part of the final analysis. This provided trustworthiness around reporting the experiences as agreed by the staff, rather than researcher interpretation.

4.8.3 Patient Narratives

Nine interviews were planned, to ensure equity across the three participating wards. While some interviews were longer than others, it was clear by the time the nine interviews had been completed that many themes were recurring. A decision was made at this point that it was unlikely anything significantly different would be heard from the other inpatients at that time, so no further interviews were undertaken (Hammersley and Atkinson 2007, p.118). This does not necessarily

equate to data saturation. Low (2019) argues that whenever data is collected, new information will be given, and new insights uncovered. Other researchers interviewing different patients in the same environment may gather information that this group of patients did not divulge, but in this time and place, the purpose was to understand the reality for this group of patients. The interviews were opportunistic, and collection started after the completion of the observations of practice and one PRG session.

The rapid turnover and increased acuity of patients are among the challenges of undertaking research in acute hospital environments and requires careful consideration and planning (Jangland *et al.* 2016). As a result, some interviews became more structured than had been intended. A clear understanding of what the patients were saying during the interview mitigated being unable to return to them with further questions. Even those patients who were remaining for longer were usually preoccupied with their ill health and treatment. It was unlikely they would want to be interviewed repeatedly, so every effort was made to ensure that all their views were captured in the initial visit. This goes to the trustworthiness of the data discussed in **Section 4.11**.

An interview schedule (Aurini *et al*. 2016, p. 100) **(Appendix 12)** was created based on the findings in the literature focusing on patients' experiences in a single-room environment, and on person-centred

outcomes from the Person-centred Practice Framework (McCormack and McCance 2017) **(Figure 1)**. This schedule was amended after each interview if new lines of inquiry were identified (Hammersley and Atkinson 2007, p.118). Questions were open-ended. Where a more direct question was required, this was noted so that any subsequent interviewees also needing more direct questions could have it framed in the same way. Notes were also taken on nonverbal cues during the interview, which might indicate discomfort or distress, and actions taken to ensure the patient wished to continue with the interview.

The interviews took place in the environment being studied i.e. the patient's room on an acute inpatient ward. To help those patients with cognitive impairment, the concept of situational capacity within process consent, was used to make it easier to understand the topic for discussion. Environmental cues were used if necessary, to support these patients recounting their stories, including vignettes describing typical situations the patients would encounter in the room such as bathing routines or mealtimes. Participants were reminded throughout that they could withdraw from the process at any time and it would have no effect on their care. The interviews were recorded on a digital audio recorder and transcribed verbatim **(Appendix 13)**, so repeatedly listening to it during the analysis phase would facilitate immersion and familiarisation (Petty *et al*. 2018).

4.8.4 Reflective journal

A journal was kept throughout the study using both reflective and reflexive processes to explore the experience. This facilitated capturing prior knowledge about person-centred practice, and the assumptions about the challenges of looking after patients in single rooms and how patients would feel about this new environment. Revisiting such beliefs and suppositions throughout the study ensured they did not influence what was being seen and heard from patients and staff. Such documentation also represented part of the decision-making trail, adding to the trustworthiness of the data, as discussed in **Section 4.11**.

Within this study, journals and field notes were used to clarify meanings, challenge suppositions and accept where personal beliefs and values may have exerted an influence on the findings. During each data collection phase, field notes were made on the WCCAT (Observations of Practice); written notes on non-verbal cues during the interviews; and on large sheets of paper (PRGs) **(Appendix 11)**. Some of these field notes included questions and points of clarification for the researcher, which were later transcribed into the journal for further reflection. Field notes vary from short notations to detailed descriptions (Emerson *et al*. 1995). Field notes also provided evidence of the veracity of the findings and the degree of insight experienced by the researcher.

A reflective piece was written after each of the interviews about what had been said, the structure of the questions asked, and the challenges of enabling the participants to share their thoughts and experiences. Acknowledging that interpretation of the conversation begins even as the words are being spoken, reflection of the interview experience endeavours to distinguish the patient's voice from my own, to enhance the trustworthiness of the data. It also adds to the context in which the interview took place. These longer reflexive notes were made at the end of each observation period in a separate journal. They described feelings about what was being observed and how events were being interpreted, where this might impact on objective analysis of the data.

4.9 DATA ANALYSIS

4.9.1 Thematic Analysis

The formal thematic analysis starts with an individual analysis of each data set using a six-step approach (Braun and Clarke 2006). These authors have recently been critical of researchers who quote the approach without illustrating how it has been used for their own work (Braun and Clarke 2019). To address this, the way the process was used for this study is detailed in **Table 3.**

Step	Description	Outcome
1	Reading and familiarisation	**Jun-Aug 2018:** Transcribing, reading and re-reading interviews and observational data.
2	Coding	**Nov 2018:** Re-reading all the interviews. Pulling out codes from all the interview transcriptions.
3	Searching for patterns	**Nov 2018:** Colour coding all the codes to identify patterns. Table of codes that did not fit into patterns.
4	Clustering codes into themes	**Dec 2018:** Spreadsheets tabulated with headings from WCCAT. Codes allocated to sub themes within the WCCAT headings.
5	Defining themes	**Jan 2019:** Identifying codes and patterns from interviews and observational data. PRG data transcribed, with codes and patterns identified. Added to spreadsheets. Common themes and subthemes identified across all three data sets. Separate spreadsheet for those themes and subthemes that could not be mapped. Subthemes divided into Positive and Challenging.
6	Finalising the analysis	**Feb 2019:** Themes and subthemes revised and refined.

Table 3 Thematic Analysis process

4.10 CONSIDERATION OF ETHICAL ISSUES

Prior to undertaking the study, ethical clearance was obtained from the Governance Filter Committee of the Institute of Nursing and Health Research, University of Ulster; the Office for Research Ethics Committees Northern Ireland (ORECNI; Project Ref: 224670); and the Research Governance office of the participating organisation (Appendix 10)

There are significant challenges to undertaking a study in an acute healthcare setting. A busy environment can make observation difficult, both in terms of capturing the big picture, but also the many nuanced events that happen throughout the day. These settings are often the scene of emotive events, so the researcher needs to be sensitive to the feelings of others and the impact of serious events on theparticipants.

The paramount concern for the researcher was the vulnerability of the participants (Bloomer *et al*. 2012). To establish some equality in the relationship between researcher and participant, meant recognising the trust the participants were putting in the researcher to accurately reflect their experience. In enabling the participant to give a truthful account of the experience, the researcher had already defined personal biases from previous experiences (Dewing 2017).The current study was designed to ensure the four principles of research ethics were met (Parahoo 2014, p. 102):

4.10.1 The right not to be harmed (non-maleficence)

This did not just relate to physical harm. The ethics proposal stipulated that patients who became distressed would be offered the opportunity to stop the interview and if necessary, to end it. In this event, the interview would be erased with the participant's agreement, so it was not used in the data analysis. Although a formal distress protocol was not required for this

interview were highlighted to ward staff. Patients were supervised until a staff member was available. During the interviews, only one patient became distressed, but wished to continue with the interview. This patient was highlighted to ward staff at the end of the interview and staff were observed going into the patient's room.

It was possible that the capacity of some participants could fluctuate. This might be due to their underlying cognitive condition or as a result of becoming increasingly unwell physically. Process consent methods and the condensed time frame between obtaining consent and performing the interviews, were used to address this. In the ethics submission, plans for patients with a cognitive impairment indicating a desire to participate in the study were detailed. It was accepted that the interviews would take longer, and the questions might have to be adapted to address the individual's cognitive ability. This was reflected in the amended interview guide for any patients with cognitive impairment **(Appendix 14)**. Cognisance was also taken of the fact that many of the participants were in ill-health, hence the reason for admission. This could lead to a decline in cognitive ability in patients who might previously have been expected to be able to understand the consent process. By acting as an advocate for those patients with limited cognitive ability, the researcher was able to highlight any issues raised by patients, to staff. As a registered nurse in a research role, the researcher was obliged to report any unsafe or poor practice witnessed during the observations of practice. All staff were made aware of this in the written information sheets provided prior to

consent being obtained.

Engaging closely with the participants, the ethnographic researcher may obtain information of a very personal or contentious nature (Austin 2013). This requires sensitive handling if the participants are to remain engaged and safe from harm. Researchers must ensure that participants have access to help and support should they become unduly distressed after reliving their experiences. Patients are telling their own story of their experience of care so they can elect what they will tell the researcher. Providing accurate, truthful information is essential for obtaining informed consent and can enhance the relationship between the researcher and participants through honest, open dialogue. Participants in all aspects of the current study were assured that they were under no obligation to discuss anything they did not feel comfortable with. It was made clear to them that they were in charge of the conversation and what was revealed At the beginning of each of the PRGs, staff were asked to agree ground rules for behaviour. These included mutual respect, the difference between anonymity and confidentiality, language, and working together.

4.10.2 The right to full disclosure (fidelity)

As part of the consent procedure, participants were made aware that should they say something during the interview that gave cause for concern, that information would have to be acted on. Before doing so however, a discussion could take place about what should be done. That might mean offering an opportunity to talk to someone who might be able to help them or offering to speak to someone on their behalf. Participants should be made aware that if the researcher is a registered nurse, there is a duty of care towards all patients. This would mean reporting any issues of concern to a senior member of staff for further action. This meets the obligations of registered nurses as listed in **Box 4**.

2.6 recognise when people are anxious or in distress and respond compassionately and politely 20.5 treat people in a way that does not take advantage of their vulnerability or cause them upset or distress (Nursing and Midwifery Council 2015)

Box 4 Nursing and Midwifery Council Code of Conduct

Participants could choose to have a member of their family present during the interview if they wished. This promotes safeguarding their interests while giving them confidence to tell their story. Having a family member present can be used to verify what the patients said. Given the potential impact on the validity of the participant's story, family members

needed to understand the purpose of the study and the importance of not speaking during the interview, so as not to influence the participant's story. Participants were reassured that hearing their story from them would be of greatest value to the study and nothing they talked about would be considered 'wrong'. Clarity around the purpose of the interview with families/carers who chose to recount their impressions of the care the patient had received, moderated carers using the opportunity to make complaints about care. Any attempt to highlight other issues/concerns about treatment etc. were redirected to the Ward Sister. A copy of the consent form for those patients participating in the interviews was inserted into their medical records. Clinical staff who had access to these records would be able to see which patients had been interviewed.

Having obtained organisational support for the study, as described in **Section 4.5.1**, the focus turned to engaging the ward staff. Staff express vulnerability when they feel their practice is being scrutinised, particularly when that scrutiny includes patient narratives (Hardy *et al*. 2007). This may have resulted in the researcher only obtaining "front stage" knowledge, when knowledge was being sought about what was happening "backstage" (Polit and Beck 2018, p.206). Knowing that the organisation was supportive of the research was a way of introducing staff to the study.

However, this could have had a negative impact if staff felt they were being coerced into participating. These competing perceptions were reflected on prior to meeting with staff, so that they could be acknowledged and responded to during subsequent meetings with potential participants.

Staff participating in the observations of practice had an opportunity to clarify any issues/actions which occurred during a period of observation, after each period of observation. Staff consenting to take part in the PRGs were able to decide what information they gave and had an opportunity to check that the understanding and interpretation of the information given during the discussions was correct.

4.10.3 The right to take part or withdraw at any time(self-determination)

In gaining the trust of their participants, researchers must assure them of their right to withdraw from the study at any time. Staff participating in the observations of practice could choose to withdraw if they felt uncomfortable or embarrassed. They were advised that any data already collected during the period of observation could not be extracted, as the data was being reported for the whole period. Participants were reminded in the Participant Information Sheets (PIS) and throughout the study that they could withdraw at any time and it would have no effect on their care or employment.

Health services are managing an increasingly older population and a growing population of people with complex health issues and learning disabilities. Researchers have a moral obligation to include these populations in research, particularly where it relates to the experience of care and the environment where care is delivered and received (Dewing 2007; Graham *et al*. 2018). Many people with dementia and other cognitive impairments are pleased to be asked to participate in research as it provides them with a feeling of worth. This inclusiveness reflects a principle of person-centred research; that of empowerment and participation (Jacobs *et al*. 2017, p53).

For those patients identified by staff as potential participants who were unable to process written information, face to face contact was used to provide an explanation of the study. A process consent approach was used for those patients with a recognised fluctuating cognitive impairment. Process consent as described by Dewing (2002), adopts a 'particularistic- inclusionary approach' to consent as opposed to the current 'unilateral competency-based approach'. This reflects the importance of including all patients in research studies whenever possible, not just those deemed 'competent' through a competency assessment.

Every patient who agreed to participate was asked to sign a consent form **(Appendix 15)**. If they were unable to do this, a record was made of their

verbal or non-verbal consent to participate **(Appendix 16)**. Signed consent forms are merely a record, so to avoid excluding those who cannot write, it is acceptable to record their consent in another way (DHSSPS 2003). If consent is being obtained other than in written form, it must be witnessed by a member of the family (if possible) and by a member of staff. A written record of this process forms part of the audit trail in the study. All consents were obtained and co-signed by the researcher.

Most patients were taken through the consent process and left to read the information sheet and consider their participation. The patient was revisited 24 hours later to establish if they wished to participate. The study information was reiterated to ensure understanding before they were asked to sign the consent form. The interview was undertaken at this time, while the patient was able to indicate an understanding of the study. In patients whose capacity fluctuated because of their deteriorating physical condition, further conversations with them indicated that it would not be appropriate to continue if they were unable to recall the conversation when the PIS had been left with them. Some patients referred by the staff as potential participants were clearly too unwell or too overwhelmed by their current treatment to be interviewed. As an experienced nurse, I was able to make this assessment following a short conversation with the patients.

There were some patients who were unable to read the PIS but could understand a verbal explanation. The PIS was left in the patient's room so family members would be aware that patients had been approached. The

following day, no family members had expressed concern and verbal verification was obtained from the patient that they wished to continue. In one instance, the patient was also unable to read the consent form, so this was done in the presence of a staff member who then signed a non-verbal consent form **(Appendix 16)**. A copy of the consent form was placed in each participating patient's medical records.

4.10.4 The right of privacy, anonymity and confidentiality

Participants were made aware of the limits of confidentiality as part of the informed consent process. Questionnaires and one to one interviews could be fully anonymised; however, while group discussions and observations of practice were confidential, they could not be fully anonymised within the ward environment. Pseudo anonymisation was agreed with all participants. Participants were given specific information relating to the observations of practice and the researcher's responsibility under the NMC Code of Conduct (Nursing and Midwifery Council 2015) to report any evidence of poor practice to a senior manager. It was also made clear to staff participating in the PRGs, that while 'ground rules' established between the researcher and the group members would include the confidentiality of the discussion, there was limited control over what the participants might reveal outside the group.

Data protection was assured throughout the project (Health Research Authority 2018). Raw data and all written material pertaining to the study was stored in a locked cabinet. Electronic material was

password protected to prevent unauthorised access. Only the researcher had access to all the original data. The supervision team had access to transcriptions from the recorded interviews and were also able to read the notes from the PRGs. The codes will be used in all reports to maintain anonymity, and participants were assured of this. Patients' demographic details were stored separately from other data to ensure they could not be identified. Staff were aware that they were clearly identifiable to each other during the group work so their comments were not anonymous at that point. They also knew that other ward staff might have become aware that they were attending the group sessions. As a result, there was a risk that the comments could be attributable to a single individual, despite efforts to anonymise the data.

Staff were given a general overview of the data from the observations of practice to facilitate the conversation in the PRGs. They had an opportunity to ask and answer questions as per the WCCAT (McCormack *et al*. 2009) **(Appendix 2)**. In addition, they were able to see all the written information collected during their own group session and could hear all the critical discussion during the session.

While it was intended to record the patients' stories wherever possible, it was also clear that there might be patients who were clearly unable to give

consent due to their present ill health or their cognitive condition. In this situation, if family/carers expressed a desire to provide their impressions of the care provided to the patient, these stories would be included and a copy of the consent form **(Appendix 17)**, would also be placed in the patient's records. While this is someone else's interpretation of the patient's experience, it has value in illustrating the perception of the care experience.

4.11 ENSURING TRUSTWORTHINESS

Key to the trustworthiness of the findings in any research is the impact of the researcher's positioning on the research process. Freshwater e*t al.* (2008, p.22) maintain that by retaining a self-awareness around their own values and beliefs, the researcher ensures the findings reflect the experiences of the participants. Additionally, Elias (1956) suggests that reflexivity challenges the researcher's ability to maintain distance, to truly capture what is meaningful to the participants in qualitative work. Using an ethnographic approach, Koch and Harrington (1998) illustrate the place of reflexivity to:

- Sustain objectivity
- Raise questions about knowledge generation and validity
- Position the researcher politically and socially

Being critically aware of one's own position when undertaking observations in the field, engages the researcher in a self-aware analysis of the

dynamics with the participants. This is particularly important where there is an “insider-outside” relationship, with the risk of the researcher using prior knowledge or experience of the study area/site to influence the study findings. As a result, the processes may drive the outcome if reflexivity is not an inherent component of the research process. Coffey (1999, p.57) however, argues that the observer/researcher’s voice will also be heard as part of the experience in the environment being studied. In the very act of studying others, we are studying ourselves; exploring our beliefs and values, understanding how we might influence participants, and being a visible presence in the field.

Vidich and Lyman (2000, p.37) reflect on the need to maintain some distance and detachment from the beliefs and values of their participants to facilitate objective analysis. This may be supported where non-participant observation takes place. In an acute care environment where the time for data collection may be relatively short, it is unlikely the researcher will be fully cognisant of all the social norms and values, unless they have an “insider” role related to the phenomenon they are studying. The reflexive researcher is able to know self by recognising the impact of their previous knowledge and skills. They must also acknowledge their own beliefs and values, and their potential impact on situations which unfold during the study. Lichterman (2017) suggests that ethnographers should record and track the confusion and misunderstandings they encounter during their research and their impact on either further data collection, or the analysis of the findings. This may resonate with healthcare researchers who are studying their own culture and context. Harvey (2013), a

researcher living with a disability, studying the experience of those with a similar disability, urges caution in this area. In spite of best efforts to recognise their own beliefs about personal/professional cultures, it is challenging for researchers to act as an observer and watch others act differently. It may feel alien to the culture they are part of, or, and this is equally challenging, may reveal actions which are much more effective, challenging the researcher's practice/beliefs. Epistemologically, recognising the multiple realities of the participants in the current study enhanced trustworthiness. Working with those multiple realities to generate knowledge and checking their understanding of their reality ensured evidence was being looked at as through a window, allowing *a* reality to be seen.

4.11.1 Participation

In encouraging participation, a key challenge for ethnographers is their own participation i.e. how far to actively engage in the research setting, to be accepted by the other participants, while staying objective about what is being observed (O'Reilly 2012, p.112). The WCCAT (McCormack *et al*. 2009) **(Appendix 3)** was used to address this challenge. It acted as a checklist to provide evidence of a decision trail to enhance the credibility of the findings. Secondly, it enabled recording of questions and/or thoughts which might influence what was being seen/heard. It was essential to be responsive to the participants' views rather than the method. The participatory engagement process, including the group work, was designed to capture staffs' views. In addition, the semi-

structured interview guide allowed new ideas/topics to be noted as they unfolded, for further exploration with subsequent interview participants.

4.11.2 Reflexivity

Reflexivity has been defined as *"having an ongoing conversation about an experience while simultaneously living in the moment."* (Coffey 1999, p.132). It incorporates deep questioning of the mental, emotional and value makeup of the researcher, and their potential effect upon situations as they unfold. The reflexive researcher understands how personal beliefs and values impact on themselves and others around them (Bolton 2014, p.14). These have to be put to one side during an ethnographic study. However, this does not mean that the researcher is removed from the study. Buscatto (2016) suggests that the ethnographer is part of the story by presenting "t*he entire range of voices present in the societies they study*…". (p.139). She goes on to argue that it is not possible to arrive at *the* truth during an ethnographic study, only *a* truth, as perceived by the participants (p.141). This supports the notion of multiple realities. Keeping a reflective journal, as discussed in **Section 4.8.4**, was one way of ensuring the researcher's voice did not overpower that of the participants.

4.11.3 Preparing Self

To prepare self, one must know self, so an understanding of what it means to be human and what we should strive *to be* as humans, is fundamental to person-centred research (Dewing *et al.* 2017, p.23). Reflexivity, as a key component of successful ethnography, enhances knowing self by recognising personal subjectivity in relation to previous knowledge and skills. As a person, I acknowledged my previous experiences which might impact on this study. As a nurse; and a manager within the organisation, I recognised my prior knowledge of both the culture of nursing and of the organisation. I acknowledged my pre-conceptions about what staff might do in particular situations, by appreciating that ways of working would be different, because I was entering an alternative field of acute healthcare, and a new physical environment. I also acknowledged my own lack of expertise as a qualitative researcher. By valuing myself, I could begin to value and understand the participants in the study, in keeping with the principles within person-centred research of knowing self and respecting others. Understanding personal beliefs and values and their potential impact on situations which unfold during the study, may also address the Rosenthal phenomenon of researcher influence on the outcome of observational data (Casey 2006).

4.11.4 Competence

Experiential knowledge can be of benefit in ethnography. Knowledge of the culture and language facilitated access to the study group, allowing the

researcher to explore personal feelings and experiences of what is being seen and heard during the data collection. This "*critical competence*" (Atkinson and Morris 2017) allows nurse researchers to understand and describe what staff and patients do and say during a study, based on their experience as registered nurses. Within the current study, further strategies included the consciousness raising and problematisation session following each period of observation. This gave staff the opportunity to clarify any issues that arose during the observation. In addition, some general feedback was provided on what had been observed. The consciousness raising with staff and the PRGs detailed in the methods section, reduced bias around how the findings were understood and interpreted. Given the differing methods of data collection within ethnography, it was also important to be able to demonstrate competence in facilitating groups; participant/non-participant observation; transcription, and analysis.

The importance of field notes to help see beyond habitual ways of knowing to the reality of what is being observed (Senge *et al.* 2007, p.41) is discussed in **Section 4.8.4**. Competence in keeping accurate notes is essential during ethnographic data collection. Nurses are accustomed to writing notes all the time; at handover; at meetings; and when speaking to people on the telephone. These notes might be short, with symbols and shorthand known only to the writer. This would reflect the detailed handover information, or as an aide de memoir for longer notes developed into something that others would understand. Such a skill is transferrable

from practice to research and contributes to the trustworthiness of research performed by nurses.

4.11.5 Dependability and transferability

Richardson (2000) reflects on the criticism that qualitative research, including ethnography, has received because the findings have often been presented artistically i.e. "*evocative writing techniques and form*". Pool (2017) meanwhile, discusses the lack of "hard" data in ethnographic studies, and therefore the difficulty in replicating such work, bringing the validity of such studies into question. Hammersley (2006) also expressed concerns around ethnography's lack of scientific rigour. In response, the term *"guiding theoretical problems"*, has been used recently to illustrate the concept of a focused inductive process (O'Reilly 2012, p.32). Such a process would provide evidence for exploring a particular area of practice while capturing the reality for those within it. This could be one way of addressing the criticism around ethnography's lack of scientific rigour. This approach should be treated cautiously, given that ethnography is not meant to be a formulaic process where potential findings are pre-empted. It does however, acknowledge the reality of undertaking research, and the challenge of developing a research question that will be meaningful for participants (Berger 2015). Other authors would suggest that dependability and transferability are better measures of trustworthiness within qualitative research generally (Johnson and Rasulova 2017).

Trustworthiness is regarded by some as a way of holding ethnographers to account around the credibility of their findings (Pool 2017), while Peräkylä (2016, pp.413-427) describes the need for researchers to be aware of conflicting issues when addressing validity:

- Interpretation of observations
- Transparency
- Interpretation of interviews using “sequential context of descriptions”
- Deviant case analysis
- Institutional identities
- Generalisability

We are also reminded however not to become so engrossed in proving the rigour of our work that we forget the more important issues around ethics and the “*artfulness of qualitative inquiry*.” (Bochner 2018).

Ethnographic studies behaviour, and it has recently been argued that if behaviours remain the same, the findings are transferable (Gobo and Marciniak 2016, p.115). Since ethnography is not about introducing or implementing change, study findings can be compared with findings from other similar studies to determine a common set of general principles (Holloway and Wheeler 2002, p.149). The trustworthiness of the research process is further strengthened through time, space, person and method triangulation **(Figure 6)**.

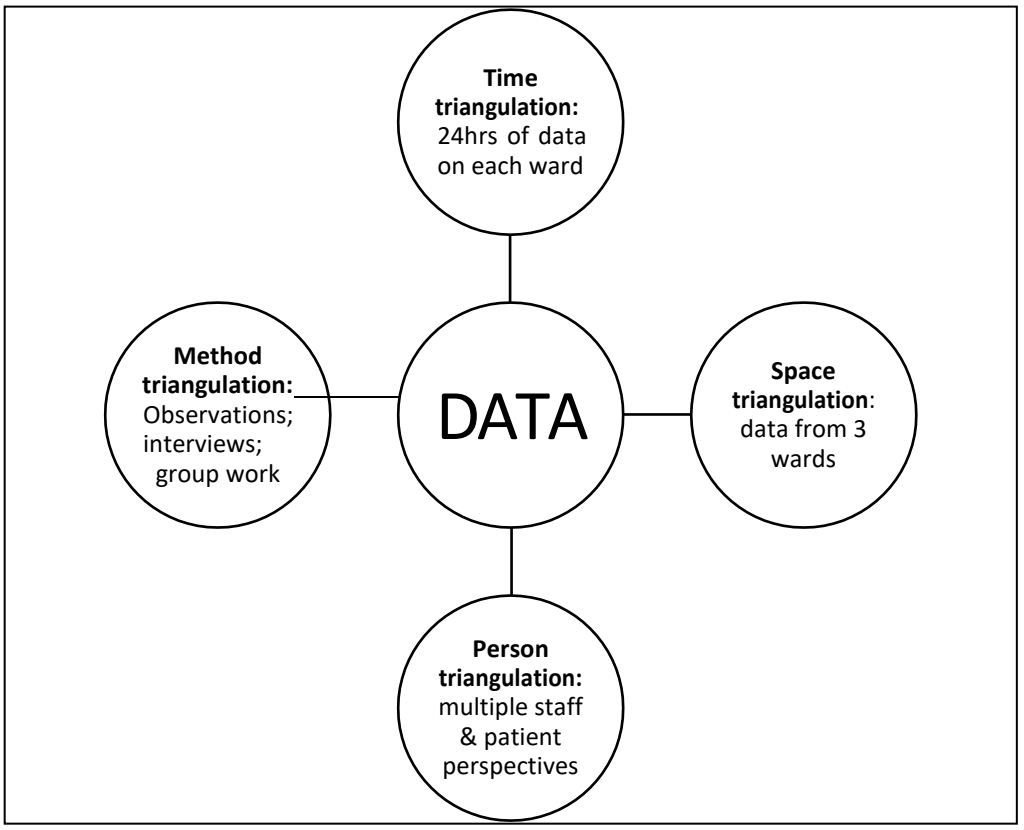

Figure 6 Quality Enhancement in Qualitative Research *(Polit and Beck 2018, 298)*

4.12 CHAPTER SUMMARY

This chapter has described the methodology and methods used for data collection and analysis. The use of the WCCAT (McCormack *et al*. 2009) **(Appendix 2)** to enhance participatory processes is explained. The recruitment of participants and the preparation required prior to data collection are reviewed. The importance of engagement with multiple stakeholders and the constant reflection and reflexivity required by the researcher throughout are examined. The challenges inherent in this type of research have been explored and these will be discussed further in the Discussion and Conclusion chapters.

CHAPTER 5: FINDINGS

5.1 INTRODUCTION

This chapter details the findings from the data analysis which identified three themes and ten subthemes **(Figure 7)**. Each theme and subtheme is supported by evidence from the data.

Limitations of the built environment	Organising & delivering care	Nature of interactions
• Provision of amenities • Environmental design solutions • Tension between ensuring privacy & maintaining safety • Working environment	• Promoting a hotel culture • Task focused care • Spending time	• Feeling isolated & vulnerable • Engaging in meaningful conversations • Opportunities to socialise

Figure 7 Themes and Subthemes

The Observations of Practice data is indicated by **OoP** with an anonymised ward identifier; and an anonymised number relating to the date of the observation. Data from the staff groups is indicated by an anonymised participant identification (ID), followed by **PRG** (Participatory Reflective Groups) and an anonymised number allocated by the researcher. Finally, data from the patient interviews is indicated by **Pt** followed by an ID number allocated by the researcher. The page number where data can be found within the data collection paperwork is indicated at the end of each piece of data.

OoP activity was the initial method of data collected and is illustrated in **Table 4.** It took place over three months across the three participating wards.

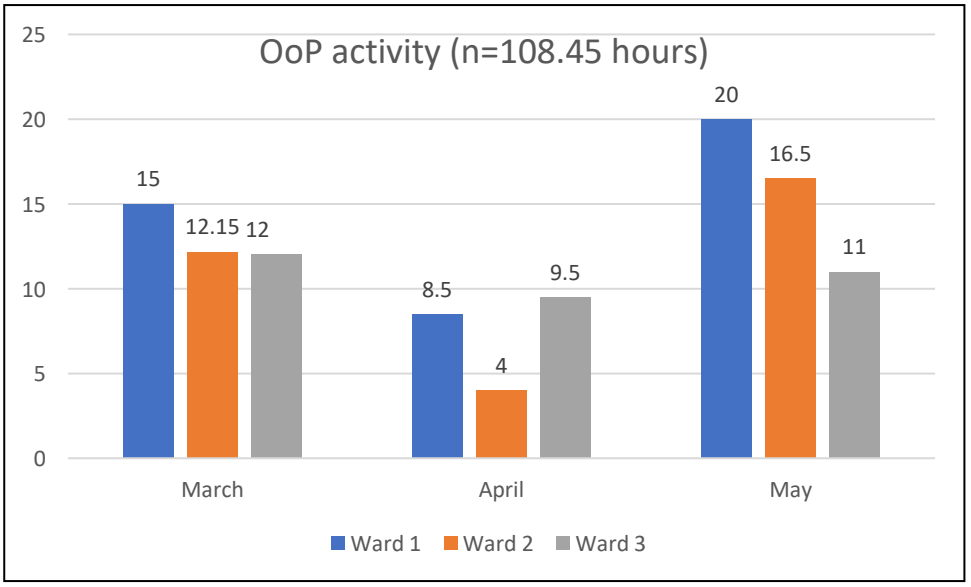

Table 4 OoP activity

PRG activity is detailed in **Table 5** and was arranged on each of the wards following completion of the observational data collection.

Ward	Duration	Attendance
Ward 1	90 minutes	Registered Nurses (RN) x 4 Nursing Assistants (NA) x 3 (n=7)
Ward 2	88 minutes	RN x 4 (n=4)
Ward 3	76 minutes	RN x 2 NA x 1 (n=3)

Table 5 PRG activity

The demographic details of the interview participants are displayed in **Table 6**. While the exclusion criteria for these participants were limited **(Section 4.6.2)**, only one interview participant evidenced any cognitive impairment, and none required an interpreter.

ID	Gender	Age	Length of Stay	Length of Interview
P1	M	19	3 weeks	39 minutes
P2	M	49	9 weeks	29 minutes
P3	F	48	1 week	39 minutes
P4	F	37	1 week	21 minutes
P5	F	102	1 week	32 minutes
P6	F	75	11 days	21 minutes
P7	F	77	3 months	13 minutes
P8	M	71	18 days	18 minutes
P9	M	83	12 days	44 minutes

Table 6 Interview demographics (n=9)

All the data will be used interchangeably to highlight the point being made. It should be noted that there may be some overlap in the themes, and these have been highlighted throughout. It becomes necessary in this type of work to be focused around a particular aspect of the data, so highlighting the lens used to look at each theme, ensures the multiple realities within the data remains visible.

Each section in this chapter will include an introduction to the theme, subdivided into the subthemes which provide the lens for understanding the theme. In addition to the quotes provided within the text, there are further examples included in the appendices, that offer additional examples from across the data sets. The appendices also include memos, that provide greater detail of specific examples supporting the themes.

5.2 LIMITATIONS OF THE BUILT ENVIRONMENT

This theme focuses on the built environment, and how participants engage with that environment. For the purpose of this study, the built environment is defined as:

"the constructed, physical surroundings (interior and exterior) where an individual conducts activities of daily living such as eating, bathing and sleeping, and interacts socially." (Soril *et al*. 2014).

This theme comprises four subthemes including: provision of amenities; environmental design solutions; tension between ensuring privacy and maintaining safety; and the working environment. Each will be discussed in turn.

5.2.1 Provision of amenities

All the participating wards in the study have a similar layout, with 24 single ensuite rooms **(Appendix 5)**. For some staff this was regarded as a positive improvement, as they had fewer patients than on their old ward, with the same number of staff. For other wards, it meant an increase in patient numbers, which was more of a concern for staff. Despite these reservations, staff did recognise that the new environment was cleaner and more pleasant to work in. During the discussion about the ward design, staff compared the new design to their previous ward environment, acknowledging *"We've been back, and we couldn't work…we've all said that. We couldn't work. It's nice to work in space."* **(P7, PRG2, Pg36)**.

All the patients who were interviewed and staff in **PRG1** recognised the benefit of the ensuite facilities, which led to improved privacy and dignity for the patients. Regardless of age or gender, patients agreed that it was a relief to have their own bathroom and they appreciated the easy access to the bathrooms. They were pleased to be able to make their own decisions about showering, and one patient reflected on how the room had promoted "*that road back to normality"* **(Pt8, Pg2)**, by encouraging mobilisation to the ensuite bathroom. This avoided the experience of the old wards where patients had a long walk along a corridor trying to find the toilet at night. For those patients who had been encouraged to increase their fluid intake, or those who had recently had urinary catheters in situ, having ready access to a toilet was imperative,

> *"…but to be in a ward with curtains and, you know, having these bags emptied and having to be helped to the toilet and what have you. I mean to go to the toilet in a ward like that, you're walking past a lot of people… In here, straight in there, that saves an awful lot of embarrassment."* **(Pt9, Pg15)**.

On the other hand, staff on all the wards felt aggrieved at the lack of toilets for the staff. Each ward had one toilet. Other toilets were available outside the ward, but staff felt this was unacceptable as they often didn't have time to leave the ward, "*One on the ward, …if you're not able to use that then you have to go out and round by the kitchens down to the cloakrooms to use the toilet.*" **(P8, PRG2, Pg28)**. This appeared to illustrate to staff a lack of concern on the part of the organisation for their welfare, "*I think the*

building clearly says that there was less thought for staff…We know it should primarily be about patient…when we moved over you were an afterthought." **(P13, PRG3, Pg35)**. This was also illustrated in concerns about the size of the ward kitchen, noted during the OoP,

> '*NA raises issue of access to and from small ward kitchen. Access is via key card so if a staff member is carrying a tray, it has to be put down on the floor and the door opened. The staff member has to prop the door open, usually with her/his foot/back, while lifting the tray. Can be dangerous if carrying hot food/drinks'.* **(OoP 0102, Pg18)**.

5.2.2 Environmental design solutions

Patients had more control of their environment and this included the blinds and doors. Being able to close the doors meant they could shut out some of the noise, especially at night, so they were able to sleep better. This led to tensions with the staff however, as described in **Section 5.2.3.**

Rooms were designed with air conditioning which the patients and staff could control. Staff had concerns about the lack of fresh air, because the windows could not be opened, and this concern was shared by patients: *"There's no fresh air."* **(Pt5, P16)**. Staff also expressed concerns about the impact of the environment on their health and well-being, *"Well, I have a*

stinking headache today and just the facility to have some air flowing round me…." **(P11, PRG3, Pg28)**.

A healthier aspect of the design was reflected in most patients' appreciation of the natural sunlight and the views afforded by the large windows in the rooms, *"….to make it a healthy atmosphere when you're lying in here with loads of natural light coming in on you…is a big benefit."* **(Pt2, Pg3)**. On the other hand, one patient, experiencing visual disturbances, highlighted that natural light and views were not conducive to well-being for everyone,

"…the first thing people say is 'oh you've a great view'. You know, might as well say 'you've a view of that door' to me, because it's like, I can't be looking at that, I just can't. It's just…it's really bright and it's just… it's awful." **(Pt3, Pg10)**.

The patient, who had to have the room kept in shade, experienced a sense of "*suffocating*" as a result, pointing out that having artwork in all the rooms might have helped **(Pt3, Pg9).** Staff also complained of finding the rooms "*claustrophobic*" **(P2, PRG1, Pg11)**, even though all the rooms had a large window between the room and the corridor, designed to improve visibility and provide light and space for the patients. While the patients appreciated the natural sunlight in the rooms, nursing staff expressed concern about being unable to open these windows, and the lack of shade, meaning the staff room could be uncomfortable,

> "*one of the big issues when we moved, in the staff room, was there were no blinds, and that was a real issue for staff cos they couldn't sit in the staffroom, cos it was too hot*, *cos the sun hits it".* **(P7, PRG2, Pg29)**.

Others felt not enough thought had been given to the number of people who might potentially use the staffroom,

> *"the staffroom's to small and like, it's used by …everybody, all of the staff, so you've domestics, the doctors go in, everybody would go in, and it's very small. Also for the fact there's no windows that we can open".* **(P13, PRG 3, Pg26)**.

Patients generally approved of the décor. One patient however, asserted that some of the equipment did not match the high standards of the new décor, *"It's good from the outside…but …they have trolleys that bring medicines to you and you'd swear to God they had no wheels on them" (Pt9, Pg27). This patient felt too much emphasis had been placed on the* décor, at the expense of other things which would have improved the experience.

Consideration had been given to integrating discrete working surfaces into the room design. Within the rooms was a drop-down shelf which was close to the patient bed, so staff could face the patients while working. Nursing staff were observed using it when dispensing drugs from the Patient Own Drug Dispensers (PODs) **(OoP 0307, Pg11)**, while Allied Health

Professionals (AHPs) used it to write in the patient notes if there were visitors in the room and the table wasn't accessible **(OoP0103, Pg14)**.

One of the innovations introduced into the new wards was a communication system, meant to address the perceived remoteness of staff working in the rooms, and to reduce the walking burden for staff **(OoP0301, Pg13)**. Staff wore batons on lanyards which allowed them to communicate with each other. Other departments, i.e. pharmacy, theatres, radiology, were also able to use the system to contact staff on the wards **(OoP 0105, Pg19)**. It was originally planned that the patients could also use the system. When patients activated the nurse call system, the staff could respond to find out what the patient needed, thus ensuring they were not travelling back and forward to collect medications, drinks etc.,

> *"…I wouldn't have to go round to that room and say, 'what do you need?' and then go back up to the Medicines Management Room and say, 'that's what it was about'."* **(P1, PRG1, Pg34)**.

The reality was, that the patients did not seem to feel comfortable using the system, so it is used solely by the staff to communicate with each other, *"but I started to say that at every admission and people were looking at me as if to say, 'no, I'm not going to be doing that'…"* **(P1, PRG1, Pg34)**. Additionally, there were concerns that the patients could not turn the system off properly, allowing them to hear staff conversations, impacting on the confidentiality of other patients, *"what happened was that people were overhearing conversations in other*

rooms because people were pressing wrong buttons so they could hear what you were saying." **(P7, PRG2, Pg11)**.

Both staff and patients felt there was wasted space on each of the floors, and that some rooms were too large. The position of these rooms however, meant they were not suitable to be used as bariatric rooms, which were required for larger pieces of equipment and furniture,

P2 *"There's one of the rooms…but then it's because it's a corner room or something. Maybe it's to do with architecture or something."*

P4 *"You would automatically think that would be our bariatric room, but it's not. Our bariatric room's Room (number)…which is a normal sized room."*

P2 *"It's one of the smallest*." **(PRG1, Pg27)**.

5.2.3 Tension between ensuring privacy and maintaining safety

Staff and patients now appeared to view the environment and who it belonged to differently. Limited visibility of some rooms meant staff had to make decisions about safety versus privacy, and tensions occasionally surfaced between staff and patients, '*the ward was noisy and the staff refused to close the door'.* **(OoP0103, Pg16)**. The context for this comment is described in detail in Appendix 18. In keeping the door and/or blinds open, staff sometimes came into conflict with patients and/or family

members, who would have chosen to close them,

> *"The number of patients who, during the day, close the blinds and close the door, and then I go in and open them cos I like to be able to see them, not necessarily through the door but through one or the other when I walk down the corridor. And then as soon as you've gone, they close the blinds again and close the door, and you wouldn't do that if you didn't feel that was your private area. But then we miss things then because we can't see."* **(P7, PRG2, Pg21)**.

The conundrum staff faced was that it was not always possible to allocate rooms appropriately to patients. For example, if there were large numbers of frail older patients; seriously ill patients or patients requiring end of life care, they could not all be allocated rooms near the staff bases. This made the decreased visibility of some rooms a much more significant safety issue. While all patients are vulnerable by the very fact of being in hospital, nursing staff had to consider the intensity of the mental and physical frailty of patients when allocating rooms,

> *"Two registered nurses discuss which room a newly admitted patient should go into. One empty room is beside a staff base, the other is at the bottom end of the 'L' (entrance to the ward). The patient is an older person and has had a bleed. The registered nurses decide the patient should go into the room nearest the staff base for closer observation – especially overnight".* **(OoP 0205, Pg19)**.

The reduced visibility became very apparent at night when staff had to make additional efforts to supervise patients, they would previously have been able to keep an eye on unobtrusively, "*risk assessment on patient with alcohol problem who has fallen several times and who may be abusing hand gel. Gel removed. Patient requires supervision throughout the night."* **(OoP0308, Sheet 2, Pg18)**. Staff commented that they were "*forced*" to go into the rooms more often because of the reduced visibility. **(P8, PRG2, Pg21)**. There was a recognition however, that this might have a positive impact of reducing the number of patient falls. There was also a sense that the extra space in the rooms meant patients had fewer obstructions to negotiate, which also reduced the incidence of falls. **(P7, PRG2, Pg21)**.

While the nursing staff were responsible for room allocation, with a focus on vulnerable patients, they did demonstrate a desire to meet other patients' wishes where possible. One patient spoke of his delight when staff moved him to a room with a view over the hills (Pt2, Pg1). As someone who spent much of his time outdoors, this was a particularly meaningful gesture to him. Considering social needs, such as views and surroundings, alongside consideration of clinical needs, such as the patient's condition; bariatric, or ligature-free facilities, were challenging for staff at times. The negative impact of moving patients to meet the needs of other patients was clear, "*…we had to move someone who'd been in the room for 2 months and he didn't speak to us for a week afterwards!"* **(P7, PRG2, Pg18)**.

This was further evidenced by the observation which detailed staff spending 90 minutes trying to find spaces for planned admissions for the following day,

> *"One patient currently in a single room who is on weekend leave, now needs to come out into an undesignated bed. The patient is contacted by the nurse in charge of the shift and is unhappy about the move. There are several phone calls between ward staff/patient/Patient Flow Coordinator to resolve the issue. At one point the nurse in charge suggests allowing the patient to remain at home tonight and return tomorrow to await an MRI. This needs medical approval, but the patient indicates a wish to return this evening. The patient eventually agrees to use the undesignated bed".* **(OoP0108, Pg12)**.

The challenges to safety and dignity of a patient not being allocated a bariatric room were evident during one period of observation,

> *"A patient required four staff to assist with repositioning due to being confined to bed. Unfortunately, this patient was too heavy for the hoist to be used safely, and it was challenging for so many staff to move the patient safely in what quickly became a confined space. It also appeared quite intimidating for the patient to be surrounded by so many people at once, even though staff behaved professionally and treated the patient in a dignified manner throughout".* **(OoP0203, Pg18)**.

Rooms were designed so that staff could manoeuvre equipment in and out easily, although the equipment itself was not always easy to use, '*portable hoists were available and were observed in use, although they appeared quite cumbersome to manoeuvre. Both sides of the door could be opened to accommodate large pieces of equipment'.* **(OoP 0303, Pg18)**.

Another design feature the nursing staff expressed concern over was the siting of the Controlled Drugs (CD) cupboard. It was now placed very visibly at one of the staff bases. Nursing staff were frequently interrupted while checking CDs, either at the beginning of a shift or when preparing medication for a patient, "*little space around the cupboard resulting in medicines being balanced on top of folders or other paperwork, or beside telephones/computers being used by other staff – distracting*". **(OoP 0307, Pg18)**.

Registered nurses in all the PRGs felt the CD cupboards would have been better placed in a less public area, such as the Medicines Management Room (MMR), or in one of the multipurpose rooms which had floor length glass windows into the corridors so could have been easily observed. The organisation was asked about this decision by the researcher following completion of the data collection. The feedback was that considerable thought had been given to where the cupboards would be sited. It had been agreed that siting them in plain view was much safer from a governance perspective.

Nurses were challenged in this environment to maintain safety around medication administration. For example, they needed greater awareness of the trolleys being less visible to staff when going into the rooms if the corridor window blind is closed, so closing the trolley down if they had to leave it **(OoP0102, Pg18)**. There was also more likelihood of interruptions during the drug round. This was partly the result of having two teams, with two drug rounds happening simultaneously **(OoP0308, Pg18)**. As a result, on shifts where there were limited numbers of registered staff, such as night duty, they had to help each other out, which sometimes meant leaving their own drug round. Staff also had to be more mindful when preparing intravenous (IV) medications and solutions or administering several different medications to patients. To reduce the walking burden, staff were observed collecting all the equipment and medication needed for IV medication administration on a trolley, before wheeling it into the patient's room **(OoP0206, Pg18)**.

Staff also had concerns about being able to locate a room where an emergency might be happening,

> *"…when a room hits the call button it'll come up on this (communication baton) what room it is. But when it's an emergency button, you have to go to one of the screens to see who's pulled the emergency button.*" **(P11, PRG3, Pg36)**.

A *'blue light system*' was designed to indicate to both ward staff and the cardiac arrest team which room to go to in the event of such an emergency **(P13, PRG3, Pg37)**. It also activates the corridor doors to open automatically and stay open. In reality staff still have to ask where the emergency is, and ward staff often don't know because it isn't one of the patients in their team.

A perception among patients was that the single rooms equated to much higher Infection Prevention and Control (IPC) standards,

> "*we are following the American attitude to hospitals, by having single rooms. Which is very good because it cuts down infection and it isolates I would say quite a lot of infection from the general ward."* **(Pt9, Pg.1)**.

During the observations it was clear that the IPC processes were interpreted differently by individual members of staff. All the rooms had a separate hand sink from the ensuite, with clear pictorial guidance above it on the steps for hand washing. While nursing staff put on gloves when working with patients and were often observed using antibacterial gel, handwashing was less evident from some staff, "*Nurses wear gloves when working with patients. Little evidence of handwashing"*. **(OoP0206, Pg18)**. Nurses disputed this observation when it was discussed in the PRGs, insisting they were all diligent about handwashing. Conversely, they went on to explain the challenges they faced in accessing the hand

washing facilities in the rooms,

> "*It used to be you would leave the actual area the patient was in and you wash your hands just outside, and for a while I was thinking, you know, you have to remember to actually wash your hands in the room. I was sort of, maybe, using the hand gel and walking outside and thinking oh where's the sink gone, for me to wash my hands out here. You know, cos you're supposed to wash your hands in the room*." **(P2, PRG1, Pg10)**.

The change of fixtures and fittings necessitated more conscious thought for what had previously been a more instinctive process,

> " *if I'm doing a dressing, I'm inclined not to use that bin there, cos I think if I'm pushing it in the bin it's going to fill up really quickly. I would gather it all up together and then…I wash my hands then*, *maybe in the room or maybe I don't actually. I would come down the corridor; I haven't touched the door or anything with my hands, cos I've taken my gloves off and all that. I come down the corridor and then I go into the sluice room, remove all the dirty stuff into one of the yellow bags: it's always double bagged, and then I would go and wash my hands in there. Rather than even in the room at all*". **(P2, PRG1, Pg1)**.

Staff also had to weigh up the safety of patients against IPC guidance issued for the new wards, while being mindful of the patient's wishes,

> *"Two nurses discuss a patient who is on continuous oxygen (O_2) therapy but needs to use the toilet regularly. The patient is unwilling to use a bedpan or a commode. The Infection Control team have advised that an O_2 cylinder should not be taken into the ensuite bathroom. The nurses discuss using longer O_2 tubing attached to the bedhead but feel this increases the risk of the patient falling. The senior of the two nurses advises carrying out a risk assessment each time the patient needs to use the toilet, and to use the O_2 cylinder if necessary".* **(OoP 0307, Pg18)**.

AHPs were also observed washing their hands, some before and after working with a patient; some only after **(OoP 0104, Pg18)**. Handwashing was also observed among the medical staff, usually after working with a patient **(OoP0303, Pg18)**. Handwashing was not evident when they went in to spend time talking to patients but were not carrying out clinical procedures. Support services staff such as cleaners wore gloves while performing cleaning duties. Some patients perceived that having their own rooms and equipment reduced the risk of infection, *"Single rooms cut down on infection."* **(Pt9, Pg1)**, and, "*…we're all in with different reasons and you don't know what's been used*." **(Pt4, Pg2)**.

Staff also recognised that the single rooms meant there was less stigma for patients who required isolation **(P9, PRG2, Pg30)**. Given that all the patients were in single rooms, patients with infection control issues were

less obvious to other patients and visitors. Paradoxically, nursing staff felt that the open visiting had contributed to an increase in poor IPC audit reports since the move. They discussed the numbers of visitors; their use of the bathroom facilities; and staff's inability to control access to symptomatic visitors, *"How can you deal with it? There's open visiting times and yes we ask people not to come if they're not well, but you don't have time to police it."* **(P6, PRG1, Pg13)**.

5.2.4 Working environment

Most of the rooms were designed to enable staff to face the patients and maintain eye contact to speak to them while using the hand sinks. A few rooms had the sinks situated opposite the bed, meaning staff had their backs to the patients while washing their hands or applying personal protective equipment (PPE). Patients could see the door clearly from their beds, and could see people coming in. Nevertheless, if they had the blinds down, they could be startled by people entering without knocking. All the rooms are fitted with in-built storage for PPE such as disposable gloves, aprons **(Picture 1)**.

Picture 1 PPE in Single patient room

There was no additional storage space in the rooms for clinical equipment such as IV lines, pads, dressings etc. This meant that staff either had the additional walking burden or they improvised. Staff on many of the shifts chose improvisation, loading trolleys with supplies such as linen, pads and so on, and moving them around the corridor as they needed them,

> *"Staff observed taking linen trolley and used linen bag to patients' rooms each time linen needed to be changed".*
> **(OoP0109, Pg18)**.

For patients using a lot of clinical equipment such as dressings, enteral feeding or IV equipment*, "equipment trolleys were placed in the patients' rooms".* **(OoP0106, Pg11)**. There was also frustration once again that the building designers had not given sufficient consideration to the working environment**,**

> *"You need proper office layouts somewhere. You've got a lot of care plans and things like that. There's not the space to be stored anywhere appropriately. We've made the space, we've made compartments, but it was never here…"* **(P6, PRG1, Pg30)**

Despite staff commenting on the lack of storage, the new physical layout meant more storage space throughout the ward. As illustrated in **Appendix 5**, all the wards were designed with main storage areas around the central staff base. Additional linen storage was provided alongside the other, smaller staff base. There was an acknowledgement of the improvements in storage, especially for larger pieces of equipment, which meant the corridors were kept clear. The participating wards had very similar layouts, meant to support staff who had to leave their own ward to help out, or for temporary staff who might be required to work on different wards. The reality was that staff moved things around to make the ward work better for them, so while the physical layout was unchanged, the detail was not always replicated. For example, some wards moved their linen storage or their stationery storage to make it more accessible. However, there seemed to be ongoing challenges of having what was needed readily to hand. This resulted in an additional walking burden for staff during the shift, as they moved in and out of the rooms to collect equipment, get things they had forgotten, or fetch things for patients,

> *"Staff were in and out of a sick patient's room getting O_2 tubing (he was supposed to be on O_2 anyway), setting up a tray for venepuncture (even though there is a venepuncture trolley in the corridor)".* **(OoP0106, Pg19).**

A non-nursing staff member commented that the nursing staff were struggling to work in new ways, where more thought had to be given to organisation to reduce the walking burden. Problems arose when staff failed to plan, to avoid having to constantly exit the rooms,

> *"Some staff think ahead about patients being admitted and what they might need for 2-3 days - pads, dressings, IVs. They stock the room accordingly to avoid walking to the store cupboards so often. Other staff do not plan ahead and waste a lot of patient contact time going to get things'.* **(OoP 0104, Pg19)**.

This view was contradicted in one of the PRGs, where the moving in and out of the rooms for things was related to lack of time rather than lack of planning,

> *"It's even with the medical equipment and things. I mean, I know we have rejigged cupboards up there to suit our own needs, but it's the same old scenario. You get too busy, things get run down, no-one's had time to top them up, so then you're in a hurry or an emergency happens, you go to run for it and it's not there. It's no-one's particular fault, it's just everybody's been busy and hasn't had time to go and do it."* (**P6, PRG1, Pg24)**.

Another time pressure resulted from the distance between the wards and other facilities, or other departments. The distance from the ward to the Kitchen Hub challenged staff, who felt it increased their walking burden during a shift, *"I mean if I'm in room 1 and I need something, I've got to go the whole way round this building."* **(P1, PRG1, Pg19)**. There was a

recognition however, that some of the issues stemming from the position of the new ward block in relation to the old hospital, thus creating increased distances were temporary: "*It's further but then we're waiting on the 2nd stage of the new build.*" **(P9, PRG2, Pg35)**. The additional floor space was felt to impact on time spent with patients, which is discussed further in **Section 5.3.3**, when staff discuss patients' lack of awareness around the ground to be covered. Staff felt it took longer to respond to patient requests creating extra time pressures,

> **P7** *"So, if someone in room 1 asks you for a glass of water or to refresh the water, you have to go right down to the other end of the ward. And that doesn't seem like a big deal, but it can take over 5 minutes sometimes and if you get stopped on the way then the person can't see…"*
>
> **P8** *"Yeah, the patient in the individual room…plenty of patients have said to me 'oh did you forget about me?' and I'm, 'no it just took me that long to get to the kitchen and back'."* **(PRG2, P4)**.

The increased floor space also meant staff at one end of the ward could not see to the other end. This made it difficult for the nursing teams to assess how busy their colleagues might be. It also reduced the awareness of the presence of other staff members on the ward as evidenced during one OoP,

> *'Nursing staff spent several minutes trying to track down a doctor to see a sick patient. They eventually contacted someone who told them the doctor was on the ward, which the nurses denied. The second doctor agreed to come and see the patient. On walking*

down to the other end of the ward, I found the doctor [everyone had been looking for], sitting at the staff base writing up patient notes'. **(OoP0306, Pg16)**.

Staff not only had to contend with increased floor space, but all the participating wards also had more beds than planned due to the presence of 'undesignated beds.' Staff discerned these beds would now be a permanent fixture, with the reduction in beds on some wards given as a reason for the continued use of the undesignated beds,

"*They've actually cut down on the amount of beds cos we used to be a 28 bedded unit now we're down to 24. It's the same with all the other floors as well. You'll find there's less bed spaces than in the old building, so that's where they're having a lot of problems with the admissions and all.*" **(P2, PRG1, Pg27)**.

This contradicted what had been said in **Section 5.2.1**, where colleagues had identified an increase in the bed capacity on some wards. The provision of ear plugs, eye masks, and temporary call bells were an attempt to provide some degree of privacy for the patients in undesignated beds. Due to all bathroom/toilet facilities being designed as ensuite, there were no facilities for these patients, *"Patient admitted to undesignated bed. Asking about having a shower in the morning. Told there were no facilities available but reassured that staff would arrange a room as soon as one became available".* **(OoP 0308, Pg14)**. Staff faced additional conflict managing complaints from these patients who were aware patients in the rooms had much nicer facilities, *"There's a patient on the ward who was in*

a corridor bed when we came in, and … she said you're the nurse in charge, you need to get me one of those rooms." **(P7, PRG2, Pg20)**.

5.3 ORGANISING & DELIVERING CARE

This theme relates to the changing perception of the environment, in relation to the layout and ways of working, and the potential impact on care delivery. Three subthemes have been identified to reflect the challenges for both staff and patients in adapting to the new surroundings: promoting a hotel culture; task focused care; and spending time.

5.3.1 Promoting a hotel culture

Having control of the air conditioning, the blinds, lights, and the tv made the patients feel like they were in a hotel. During the interviews, several patients did comment on how the wards now looked like a hotel. A hotel culture was created within the wards (from the patients' point of view). One patient commenting on the fact that staff were unable to provide additional sundry items at night, such as extra toilet rolls **(Pt4, Pg8)**. Another commended staff on replacing the towels in the bathroom daily **(Pt3, Pg4)**. This made the staff anxious at times, feeling the public now expected the hospital to be run as an hotel because of the new facilities, **"***It is like a hotel and we're serving them. That's just what it's like. You know there's no 'I'm in hospital will you help me please'." (***P8**, **PRG2, Pg20).** They claimed to feel they

were being treated as housekeepers, rather than professional healthcare staff, illustrated during an OoP on one shift. *"A patient summons a nurse because he cannot find the tv channel he wants to watch, and he wants the nurse to re-tune the tv".* **(OoP0105, Pg11)**.

Patients did seem to gain reassurance from the frequent visibility of cleaners on the ward, which they equated with the cleanliness of the ward; one patient noting, *"The rooms are cleaned four or five times a day."* **(Pt7, Pg3)**. The staff agreed that the wards, being new, looked much cleaner, but pointed out that because the patients now had more 'clutter' in their rooms, it could be difficult to find a clean, clear space to work **(P7, PRG2, Pg18)**. This was in line with staffs' perception of the patients regarding the rooms as 'theirs'. As a result, staff felt a sense of invading the patient's space when they went into the room and this made them feel uncomfortable,

> ***P10 "****You go in for the task you have to do".*
> ***P7"*** *I feel it's like the patient's space…It's like a bedroom and you're invading their space".* **(PRG 2, Pg7)**.

Patients on the other hand felt that the privacy of their own rooms meant they were less concerned about disturbing other patients when they wanted to watch tv for example, *"I'm not intruding in anyone else's space as it were."* **(Pt8, Pg5)**. They clearly appreciated having their own rooms, particularly those who were aware some patients were in undesignated beds. However, some patients also seemed under the impression that the new ward block was in addition to the wards already

in use rather than as replacements. This appeared to provide reassurance that there were now more beds available, with little awareness that the increased floor space did not equate to an increase in beds, "*...so, it's just as I say, the main thing is just concentrate on getting more of it finished and more beds available."* **(Pt2, Pg15)**.

The issue of families delaying discharge while they waited for a place in a care home of their choice had been problematical in the old ward block. The new environment appeared to increase families' unwillingness to accept a residential care allocation that did not meet the environmental standards of the new ward block, *"they look at the nursing homes and say, well here's much, much nicer. I want to find somewhere that looks like this."* **(P7, PRG2, Pg19)**. While patients recognised they were in hospital, they viewed the room more as a social space. Some patients expressed appreciation at having their own room to carry on their work as they recovered from their illness/injury. They could use their mobile phones in the rooms and use their laptops to keep up with work, as well as contacting family and friends. Meanwhile, staff were trying to maintain a clinical working environment as discussed in **Section 5.2.3.** Staff perceived patients were now inclined to make a direct comparison with a hotel environment because of the ward appearance, which caused some exasperation, *"…they turned round and said well this is a bit of a boring room, I can't see anything; and I'm going…it's not a hotel, it's a hospital."*

(P8, PRG2, Pg19).

5.3.2 Task focused care

Care rounds were observed on all the wards involving registered staff and NAs working together to help patients with personal hygiene; turning patients confined to bed, and remaking beds where required. Staff always closed the doors while performing care, although not always when changing the beds. Blinds were not always pulled down, unless personal care was being delivered. Most of the 'physical care' at night was delivered by NAs **(OoP0109, Pg9)**, with the NAs dividing work between them – direct patient care or checking supplies and organisational tasks **(OoP0308, Pg19)**. Registered nursing staff spent a considerable amount of time on medication administration, on day and night shifts. While they were often observed preparing IVs in the MMR, this was not always common practice,

> *"One nurse is supervising another nurse loading a syringe driver. All the medications and equipment are brought to the staff base. At one point, the nurse completing the procedure has to go back to the Medicines Management Room to get an alternative syringe".* **(OoP0201, Pg19)**.

While it may have proved challenging in some of the old wards where there was limited space for preparing medications, all the new wards have a separate MMR for that purpose. Staff commented on the small size of the MMR **(P7, PRG2, Pg33)**, and the challenges of having the IV

giving sets kept at the far end of the ward to the MMR, resulting in more walking for staff **(P7, PRG2, Pg12)**. All wards were meant to have PODs in the patient rooms (locked cupboards which would contain the patients' medications and would be managed by the Pharmacy team). Only one of the participating wards currently had a Pharmacist, who clarified that, *"PODs are now managed by IT due to the introduction of a swipe card staff access system. She was unsure what happens when the cards don't work".* **(OoP0201, Pg18)**.

There were indications too, of the impact of new ways of working on other staff groups,

> *"An AHP noted the single rooms made it easier to have conversations with patients about medications because of the increased privacy and confidentiality. She clarified that if visitors were present, she asked the patient if they were happy for the visitors to stay. She felt it could be helpful to have family members present as they sometimes knew more than the nurses about the medications"*. **(OoP0201, Pg18)**.

Support Services staff (Kitchen aides) also had newly defined areas of responsibility,

> *"RNs alert kitchen aide to arrival of dinner trolley to begin distributing drinks to patients. Checks with nursing staff about patient who has returned from theatre and is requesting a drink".* (**OoP0108, Pg19**).

This was a new role for many of them, who would previously not have had such direct patient contact. They clearly enjoyed it, taking time to talk to the patients and their visitors. The cleaners were also very visible during the observation periods and they spoke about the impact of changes to their working practices,

> *"The cleaners now worked in teams across a floor (two wards). Each one has responsibility for a separate area: one cleans rooms 1-12; one cleans rooms 13-24; one cleans circulation areas cleaning the patient rooms; prioritising the cleaning areas when a colleague was absent; and working around larger numbers of visitors in the rooms".* **(OoP0101, Pg11)**.

Some nursing staff viewed the reduced visibility of the medical staff as a positive development, feeling it offered opportunities for greater autonomy and decision-making as part of their own learning and development, *"well it helps improve yourself, from working on your own more you do improve your confidence."* **(P4, PRG1, Pg2)**. Two examples from the same ward detailed in Appendix 19, put this concept of confidence into context. One illustrates how staff with the confidence to make autonomous decisions, maintain a focus on the patient. In the other example, a lack of confidence results in an unduly long wait for the patient to be discharged. The reduction in the physical presence of medical staff in the new environment, beings the autonomous decision-making practices of nurses and AHPs into sharper focus in the delivery of person-centred care.

It was clear that nursing handovers were an integral part of any shift. The main handovers at the beginning of every shift were given to the two teams separately on every ward. Some wards also had a safety briefing which took place before the main handover, involved all the nursing staff together, and covered all patients **(OoP0106, Pg12)**. In addition, mini handovers happened between team members every time any of the nursing staff went on a break **(OoP0104, Pg13)**. These handovers often included more social information about the patients and families than the main handover **(OoP0201, Pg12)**, which tended to be very medicalised; reporting observations, medications and treatment **(OoP0303, Pg12).** Nurses consistently maintained that this frequent communication about the patients was an indication of their sense of responsibility for their patients' care. They felt that this also reduced the need for the 'nurse in charge role,' as they all took responsibility for the patients within their team, *"…unless there's like a serious incident or a staffing problem, it doesn't need to be the nurse in charge. It's the nurse who's in charge of your care that's important…"* **(P7, PRG2, Pg4)**. When it came to identifying who was in charge on out of hours shifts when the Ward Sister or Deputy Sister were not on duty however, a culture of implicit leadership was described,

> *"There will always be one person, but what we're saying is it's not…it doesn't have to be documented or have a badge on. You just know who that is. You know to go to that person if you need anything."* **(P9, PRG2, Pg4)**.

Staff were clear that anyone looking for the nurse in charge could speak to the most senior nurse on shift who would deal with any immediate problems. Otherwise more general matters were referred to the Ward Sister to resolve. While this did not appear to have changed from the previous way of working, one staff member did recognise that the new design might have an impact on the perception of leadership on some shifts,

> *"…the problem is sometimes you've got an even number of people on, where maybe you'd be better with an odd number of people and then one person is in charge and can oversee the whole area, which happens when [Ward Sister] or [Deputy Ward Sister] is on. But you find at the weekends that maybe goes down to your bare minimum, so you're sort of trying to manage one side and the other side and there's nobody to manage the both sides."* **(P2, PRG1, Pg6)**.

While many tasks appeared to be carried out automatically on every shift, there was an indication of how the task-centred nature of care could be reinforced during some shifts. A list of patients on hourly observations was found on the staff base during one observation period **(OoP0307, Pg19)**. It was ticked each time the observations were performed. Another piece of paper was left sitting at a staff base headed "washes." It contained a list of room numbers - with either a ✓ or "refused" beside each number **(OoP0303, Pg19)**. During one observation period, it was noted that all the patients who needed dressings changed seemed to be in one part of the ward **(OoP0307, Pg19)**. When asked about this later, staff said this

intentional room allocation (where possible) made it easier for one team to do all the dressings.

It became clear during the observation periods that while the nursing staff recorded clinical observations in the room, completing/updating the patient notes took place at the staff base. Some staff argued that patients were less interested in documentation and care planning, and more interested in what was being done to make them better. For example, one ward had been involved in previous quality improvement work around documentation but had to withdraw from the project because of lack of time and the patients' unwillingness to participate, *"…they wanted you to take control, do what you had to do with them to make them better. They didn't want to be involved in the care paperwork side."* **(P10, PRG2, Pg25)**. As a result, many of the nursing entries in the patient notes appeared very task focused, *"no reference in nursing updates of family, patients' views of care; evidence of shared decision-making".* **(OoP 0203, Pg13)**. This was also commented on by some patients,

> *"I've seen them recording that there. I never saw them writing up notes as such...you know they come in and record your temperature and that there...as far as writing up your notes or anything…they wouldn't be doing it in here."* **(Pt2, Pg11)**.

Nursing staff agreed that not everything was recorded, rather that they reflected conversations with patients and documented what they thought was relevant. They felt that they documented crucial information in the notes and provided more verbal information at handover. In PRG2, staff felt that the documentation would not be an indicator of person-centredness; observing on the ward would provide greater insight, "…*You would know if you stood in the same place for an hour and listened and things."* **(P7, PRG2, Pg25)**. Some nursing staff in PRG1 felt it was only when they were 'specialling' a patient that they would write the notes in the patient's room,

> *"Well it's useful for watching the… patients while doing your writing. That's the only one we write up on. If we're allocated that patient, you find that you're keeping the notes and you can, maybe write the notes in between and that's the only time I would be writing notes on a continual basis. Usually you're last thing at the end of a shift or say if it's a morning shift, you're sort of rushing at 11 o'clock to write everybody's up, everything you've been doing that morning."* **(P2, PRG1, Pg17)**.

Nurses also stated that they did not complete patient notes in the rooms because on the old ward they had worked at the staff base, *"That would probably be what's always happened, and we just keep doing it."* **(P2, PRG1, Pg15)**. It was also thought that taking the notes into the rooms

would inconvenience other staff and cause confusion,

"*And I think the thing is too there's so many disciplines and different things like dieticians, doctors and that, always wanting notes, so you could really never take them away. Cos if you're sitting then in the side room or in the rooms, you're going to have constant interruptions. You know…you're going to have dieticians and speech and language and all sorts wanting… then I think that's where things become…go missing, disorganised."* **(P5, PRG1, pg15)**.

While meaningful conversations between staff and patients around the care plans were not a regular occurrence, it did happen occasionally, *"Staff demonstrate evidence of being aware of what is in the care plans through conversations with patients/family members".* **(OoP 0306, Pg19)**.

5.3.3 Spending time

There was evidence of staff using their time in the rooms to talk to the patients about their care. The patient's psychological needs were also often reflected in the entries by staff,

> *"A nurse was observed explaining the patient's IV regimen and the reason for particular medications to a family member. There was a discussion about the plan for the day, although this was more about providing information than shared planning. The nurse was also observed in the room asking the patient's permission to check a syringe driver and moving to the other side of the bed after apologising for stretching over the patient in bed".* **(OoP0603)**

In the same patient's notes,

> "*there was evidence of the patient's emotional and mental state, as well as the patient and family's concerns about care. These entries were made by a Clinical Nurse Specialist involved with the patient's care".* **(OoP0303, Pg15)**.

Nurses' heightened sense that they were invading the "patients' bedrooms" and encroaching on their privacy, resulted in a failure to take opportunities of spending added time with patients. Staff generally commented on how the multibedded bays reduced opportunities for talking to patients about their care plans and sharing the decisions about their treatment because of the lack of privacy. However, now that the patients were in single rooms, nurses on the participating wards found new inhibitors to spending time with patients, *"I think if you went in and started writing notes in rooms you would never get anything done.*" **(P3, PRG1, Pg17)**.

Much "chatting from the door", was observed which several patients commented on, although they did not appear critical of this approach, *"Well sometimes they just stand at the door and if I had something to say I would like, 'listen can you come in and close the door'."* **(Pt1, Pg26)**. Meanwhile, nurses talked about how different ways of working might impact on patients' perception of the time spent with them, although this also tended to focus on the tasks at hand,

> *"…some staff are saying that they prefer to do everything at once when they're in the room…but then that might mean you went a longer time before you saw someone else. Whereas if someone had a different approach and did medicines first and then went back in an hour and did the observations, it might feel you're getting more frequent attention."* **(P7, PRG2, Pg27).**

Staff believed that the patients felt forgotten about because they could not see what else was going on and how much ground the staff had to cover when fetching things for them. An altered perception of the time spent on their care meant patients did not realise how much time may be associated with indirect care outside the room,

> "*…that woman who felt that her concerns weren't being listened to because nobody was staying in the room, but actually when you did a timeline of all the interventions that had been done and all the people that had been contacted on her behalf and all the pain relief that had been administered and the CT scans organised and catheters and doctors contacted, there was, but she couldn't see any of that.*" **(P7, PRG2, Pg26)**.

Patients reasoned that the lack of time spent *with* them by staff was due to how busy they were, because they couldn't see what staff were doing anymore, *"They've that much to do, honest to goodness. It's awfully hard to get hold of them sometimes."* **(Pt5, Pg17)**.

Staff appeared to have little time to discuss meal options with patients, with the menu cards being read out quite quickly and patients expected to make choices. There was no opportunity for patients to discuss options with other patients around them as they would have done in multibedded bays. Many of the older patients seemed to find the meal selection process confusing, both in terms of the speed at which they were expected to make a choice, and in understanding what some of the choices were. Staff were observed prioritising mealtimes so that meals were distributed very quickly. Registered and non-registered nursing staff regularly checked with patients that they could eat unaided and focused on those patients identified as needing assistance,

> *"A registered nurse makes sure the patient can reach everything on the meal tray. Goes back to check on the patient, who has fallen asleep. Wakes patient and assists with meal"*. **(OoP 0302, Pg19)**

5.4 NATURE OF INTERACTIONS

The final theme focuses on the feelings engendered by the new environment, as well as opportunities for engagement, both clinically and socially. This is captured in three subthemes: feeling isolated and

vulnerable; engaging in meaningful conversations; and opportunities to socialise.

5.4.1 Feeling isolated and vulnerable

Patients in this study pointed out that they could not see the ward round happening so were never sure when, or if, the medical staff were going to visit them. Such insecurity meant they were not sure when to advise family to visit or even when to take a shower, in case the staff came in **(Pt3, Pg13)**. Other patients described concerns about the large number of staff on the ward round, feeling there was little opportunity for private conversation, *"I feel, not intimidated, that'd be the wrong word, it's just... cos obviously they know that you know what's going on with you anyway…you'd just like that one on one rather than one on a hundred and one."* **(Pt4, Pg11)**. Others suggested that it is only during one-to-one conversations that they really understand what is happening to them.

> *"Well there's been times whenever the doctors come in, say two doctors come in and they sit and talk words that aren't even English…and then the two of them walked out...A couple of minutes later Mr.*** walked back in and explained what was going on…"* **(Pt1, Pg14)**.

Some of the ward rounds were observed to include particularly large multidisciplinary groups going into each room **(OoP0202, P19)**. This had

always been the case but having a large number of professionals coming into the patient's room and standing in close quarters contrasted with having the group standing in a multibedded bay.

Other patients expressed frustration at the lack of information about when things might happen. While patients in multibedded bays were reassured by the visible presence of the medical staff, even if they had to wait to be seen, the patients in single rooms were left in the dark about what was going on,

> *"I'd try and get hold of like a Consultant or the doctors, they keep saying 'oh they're on the wards. They'll be here today; they'll be here this morning; they'll be here in the afternoon.' And you're sitting here and sitting here and waiting forever for them. And I've even gone out to the door a few times..."* **(Pt3, Pg15)**.

Staff agreed that the single rooms were less conducive to conversation now. In the multibedded wards, patients would have had conversations with each other and with the staff,

> *"…they all would have bounced off each other, or like, if you were having a conversation with one, someone else would've chirped in and the whole bay would've been in conversation, and there was a wee bit…and I would have enjoyed that a lot more."* **(P8, PRG2, Pg10)**.

Sharing experiences often help to reassure patients, and this was now missing because there were no obvious opportunities for socialising. As a result, staff recognised that older patients in particular, wanted them to stay longer, implying that patient vulnerability increased staffs' vulnerability in being unable to meet patients' needs,

> *"I find it hard sometimes even if I'm in checking a blood pressure and it's like an elderly lady or an elderly gentleman, and they are lonely. You're nearly feeling yourself walking backwards to get out of the room. You're like Ok I'll see you later and like rushing cos you're thinking I've got 9 million things to do and all they're wanting to do is have a chat and I don't have time. And like, that is really sad."* **(P3, PRG1, Pg17)**.

Patients also recognised that, while they might enjoy being left undisturbed, it was not the same for everyone, "*Different environment needed for older people."* **(Pt4, Pg2)**. On a more positive note, staff felt that the single rooms could feel less threatening to older, confused patients because there was less activity going on and their surroundings were less clinical,

> *"I think it goes back to the whole them thinking of their bedroom…Whereas when they were in a bay and they wake up and see three other…like say it's a bay of four, and you're looking at these other people and why are they in my room? Why are they looking at me like that?"* **(P8, PRG2, Pg24)**.

They recognised the importance of a non-clinical environment to make older patients feel less frightened during their hospital experience. Some patients discussed the reduction in noise at night, facilitating restful sleep: "*At nights, there's no traffic about at any time."* **(Pt2, Pg16)**, while others were distracted by noisy equipment in the corridors, *"there seems to be no thought about the patients at night. It's not the nurses' fault, it's not anybody's fault. It's what they're given to use*." **(Pt9, Pg31)**. Some also expressed anxiety in being alone which prevented them being able to settle, *"I haven't slept since I've been in here."* **(Pt3, Pg1).** The concept of wakeful rest was also described by a patient who was restricted to bed but felt more relaxed in the single room, *"…there's visitors come in and you've the tv and that breaks up the day and a bit of reading there maybe, you're wanting to read the paper or something…"* **(Pt 2, Pg6)**.

For other patients, staff identified that the single-room environment seemed to feel safer, due to the privacy, but also 24 hour nursing care. The result was an unwillingness to leave,

> *"They're definitely, definitely staying longer because they don't want to go home. We have a palliative patient at the moment who's in a room and he's safe and secure and he just doesn't want to go home. He's medically fit and has been for weeks, and just continually puts obstacles, and it's because he feels safe and secure. But if he was in a bay, he'd have been gone."* **(P7, PRG2, Pg1)**.

Examples of person-centredness seemed more evident 'out of hours,' i.e. night duty, evenings and weekends, when there were fewer staff on duty, but also less activity related to ward rounds, theatre lists, investigations and so on. During two observation periods at the weekend,

> "*The nurse in charge was observed checking patients hourly to ascertain if they needed anything; if their observations had been done; chatting to them generally about how they were feeling".* **(OoP0306, Pg19)**.

Patients who expressed negative feelings about their experience also described the importance of random acts of kindness,

> *"A guy had to go out of his way last night, he did, and he was brilliant now, he did do that, he went and got me a big jug of blackcurrant cos I can't have orange juice either."* **(Pt3, Pg5)**.

Even when surrounded by distractions, there was evidence of staffs' mindfulness of the context in which they were speaking to patients and family members,

> *"A young doctor was observed maintaining an air of calm as he sat at a staff base, surrounded by a cacophony of noise and requests from other staff. He was having a telephone conversation with a bereaved relative. The conversation lasted for approximately 15 minutes, with the doctor answering all questions quietly and explaining what would happen next in a quiet, sympathetic voice".* **(OoP0101, Pg13)**.

Some older patients expressed anxiety at feeling disorientated in the rooms. This also related to not being able to see what was going on, so having fewer points of reference to time passing, *"I said to somebody what time is it? …and they said' it's about five minutes to 2.' I couldn't believe it. I thought it must be at least near bedtime*." **(Pt5, Pg3)**. During a night duty shift, an episode occurred that illustrates the acuity of some patients, not always related to physical ill-health, and the variation in staff approaches to coping with such challenging patients **(Appendix 20)**. This episode serves to highlight the very real challenges of managing such confused, older patients in the single-room environment. The heightened sense of isolation and disorientation was not recognised by all staff, resulting in an occasional incident where the lack of respect shown to older patients was evident,

> *"A workplace student was working with a NA and a student nurse. They all went into a patient's room during a care round to change the patient's position. The NA failed to introduce the workplace student or ask the patient's permission for this student to assist with care".* **(OoP0303, Pg14)**.

It was not only older patients who felt isolated. Younger patients were concerned about being out of view given some specific physical symptoms, *"If something does happen or you collapse, no-one will know."* **(Pt4, Pg5)**. This patient was in an area of the ward where there was less activity and was further away from the staff base. Another patient was anxious about a new diagnosis and felt unable to settle or

sleep in the room, *"I've had like two hours sleep and then I'm wide awake now and then I'm like maybe doze over again, then I'm wide awake again."* **(Pt3, Pg2)**. The inability to share their concerns with other patients as they could have in the multibedded wards, and staff's lack of time to have meaningful conversations with them, resulted in a heightened sense of isolation, *"They'll not actually come in and sit down and say this is what's happening or anything. Nobody's done that."* **(Pt3, Pg23)**. Staff seemed surprised at the lengths younger patients would go to so as to not be left alone in the rooms,

> **"…** *we've had a few people in their 30s, 40s who maybe had never been ill before and all of a sudden had been admitted to hospital and, they didn't want to be in the room alone. They felt that you should be with them, just literally standing at the door...*" **(P7, PRG2, Pg20)**.

During the observation periods, apart from the nursing staff, the people who had most interactions with the patients were the cleaners, who were present throughout the day on all the wards, *"A cleaner is chatting to a patient who indicates the need to use the bathroom. The cleaner reassures the patient she will get a nurse which she does immediately".* **(OoP0202, Pg16)**. They provided much of the social interaction with patients, especially those without visitors, and had a cheerful rapport with some of the longer stay patients **(OoP0201, Pg12)**.

Most of the anxiety felt by patients related to aspects of their care experience in the single rooms. One older patient who had been diagnosed as exhibiting signs of dementia, was able to recount quite clearly her discomfort at having personal care undertaken by a male nurse in the ensuite bathroom,

> *"I said to the young man, he's very nice, he would persist every day about showers and in the end, I said, I don't want you have you got that? I don't want this, and he said I'm very sorry. So sure enough the next day it was a lady …"* **(Pt6, Pg7)**.

An older patient appreciated the open visiting that allowed her family to come in at mealtimes to help her but felt anxious at breakfast when her family were not there, *"I'm supposed to have assistance, but the assistance consists of putting the things in front of you and showing you where they are and disappearing."* ***(*****Pt5, Pg7)**. While these incidents could also have occurred in a multibedded environment, both patients communicated anxiety related to their isolation. Both patients were situated in rooms away from the staff base.

Staff also expressed their own sense of vulnerability when they were in the rooms on their own. There was a heightened sense of fear of dealing with confused/ aggressive patients/visitors because staff are isolated,

> "I *think people were less likely to kick off [in the old ward]. Like if somebody's going to kick off and be verbally abusive, they're going to do it, but I think with being in a side room, people don't really*

care what they say to you. They can be really rude to you because there's nobody about there to judge them." **(P3, PRG1, Pg15)**.

In part, the anxiety seemed to be around the fact that there was no-one to witness interactions between staff and patients. Staff were obliged to risk assess such situations to ensure they did not go into those rooms alone,

"Staff were observed having to manage an aggressive patient who continually tried to remove tubes and made several attempts to leave the ward. At one point the security team were required, and subsequently an NA had to stay with him constantly. The door was kept open, and another member of staff remained in close proximity." **(OoP0106; Pg18)**.

The nervousness some staff expressed around working in the rooms seemed to relate more to being under closer scrutiny than in multibedded bays, once again reflecting the invasion of space. With the introduction of open visiting, more people were present in the room now when staff were performing care, *"…they look at you. They won't even move for you. Go to do a BP and it's like a fight to get to the machine."* **(P6, PRG1, Pg13).** Then again, some staff regarded this positively, appreciating that it provided them with an opportunity to reassure family members about the care being delivered,

"Visiting times on the old ward, you would be trying to get the back round done and …and then you could've been bombarded, if you were the only nurse on that side…you could have three or four

people waiting to speak to you. So, it takes away that…so you have a little bit of chat through the day with relatives, updating relatives…" **(P13, PRG3, Pg19)**.

The design appeared to have created an additional sense of isolation because staff could no longer see across to the other wards as in the old ward block. They related this to a need for additional staff to feel safe. They also expressed a lack of solidarity with colleagues facing similar pressures in other wards,

"Well part of the staffing ratio problem is to do with the isolation you feel sometimes on your ward, because in the old build you could see people all across the floor, so you'd know there would be help there and there was other people, and you could see that other people were busy and you thought, oh that's alright, cos we're having a better night than them. But here, you just see your own wee world." **(P7, PRG2, Pg37)**.

5.4.2 Engaging in meaningful conversations

Staff identified a lack of engagement on the part of the organisation related to the development of the design of the new building. This was apparent in statements such as: "*I never remember anybody saying to me, right, what do you think should go into the new hospital. "(***P5, PRG1, Pg36).** Other staff recalled trying to put forward opinions about potential

difficulties,

"I was embarrassed one day cos I made a suggestion about the bins. It was a senior member of nursing staff, not on this ward, on another ward. I said, 'oh that's going to cut cos it's rough, put your hands in'. I thought this was like a temporary thing. She was like, 'well too late for that now, that's the way it's going to be' (said in a quick staccato voice). And I thought, 'what's the point in this today. Really, what is the point, the decision's made' ". **(P6, PRG1, Pg36)**.

Nevertheless, some staff were given the opportunity to see a design prior to work beginning, "We were all given the opportunity to go and look at mockups, but that was for a space that had already been designed…" (P7, PRG2, Pg5). Additionally, there was some resentment in the way the organisation's decisions were made,

> "*Like I know some of the people showed us round had been nurses, but when was the last time they were maybe on a ward in a clinical area? They should have had input from the modern-day nurses working now."* **(P6, PRG1, Pg36)**

Staff also appeared resigned to feeling forgotten about by the organisation, feeling alienated when it came to expressing concerns about the new building, *"…and the (senior management's) been round and every time you try to say something that's not a positive, you're just cut off."* **(P7, PRG2, Pg28)**. While most of their frustration was related to the limited staff

facilities, they expressed mixed feelings about the availability of senior managers to listen to their concerns about the challenges on the new wards,

> *"Well I think sometimes, give them credit [Governance Leads], they are good. Like they would stop and say how are things? Is there any problems or is there anything that needs done? They are good like that. But above them, I've never personally in this hospital clapped eyes on (senior manager), or any of the other bigger bosses."* **(P3, PRG1, Pg37)**.

Engagement with patients was much more satisfying for staff. They commented on the pleasure they got from being able to spend time with patients, equating adequate staffing levels to being able to deliver enhanced quality of care,

> "*Like today we had loads of staff down there and I just said, I was in with the***(condition) patient, and I must have been in nearly a good hour with her. And I just thought…it was just lovely. I knew there was like 3 other nurses then I was able to spend that whole time and just do everything with her at once and be able to get a bit more of a rapport. We don't seem to be spending the same amount of time, because you've just got to do what you have to do there and then, and then go to something else and maybe come back and do the other thing you need to do."* **(P2, PRG1, Pg16)**.

Some patients seemed resigned to the lack of opportunities for meaningful conversations: *"…my opinion doesn't matter very much you know."* **(Pt9, Pg1)**. Frustration was repeatedly expressed about the lack of engagement around discharge planning,

> *"Well, I don't think my view makes much difference to be honest with you. Because I'm lying here, taking up a bed that the hospital dearly want; and it's a bit embarrassing that I'm stopping a seriously ill patient from having this room."* **(Pt9, Pg4)**.

This patient's discharge had been delayed, but no-one had come to explain what would happen next. On speaking to staff after the interview, they were unaware of the patient's distress.

Other patients also expressed resignation at the limited time staff had to spend with them, "I*t's just one of those things you get used to*." **(Pt5, Pg8)**. Nursing staff seemed to accept that care planning with patients was limited to a specific point in time. There was no expectation of the need for ongoing conversations around how patients were feeling about the care they were receiving, and the decisions that were being made about them during their stay, *"That would always be done on the admission wouldn't it? Because you are sitting down with the patient to do..."* **(P9, PRG2, Pg9)**.

Other nurses were clear about opportunistic conversations with patients while they were in the room performing tasks, for example discussing their wounds postoperatively,

> *"The patient will sometimes ask you what do you think of that today? So that's engaged obviously and then there's a conversation about how things have progressed with their healing and things like that."* **(P6, PRG1, Pg18)**.

With the introduction of open visiting, family members were present more often, so nursing staff felt that justified their not being in the room because,

> "*…you've got all the family in there… we can't practically sit in the room and do our writing when they're all sitting having their conversation in the room.*" **(P9, PRG2, Pg9)**.

Significant amounts of time *were* spent providing reassurance when it was required to particularly vulnerable patients, with single rooms providing privacy and confidentiality for difficult conversations. Staff were observed advocating for patients when necessary,

> *"A nurse is observed talking to the medical team, acting as an advocate for a patient who is unhappy about delays in treatment. She points out to the doctors that the patient has a valid cause for complaint and asks that they go and speak to the patient about her concerns. One of the doctors agrees to do this. A little while later, the nurse in charge leaves the ward round to speak to the same patient. She sits across from the patient and puts her hand on top of the patient's hand. She spends the next hour talking to the patient."* **(OoP0103, Pg15)**.

The observational data revealed that there was a disparity in how staff used the rooms for meaningful engagement. All groups of staff spent time in the rooms talking to patients and their families about treatment plans (doctors); activities and progress (AHPs); discharge planning, medication and diagnosis (nurses). During the observations, *"a nursing assistant spends fifteen minutes with a patient experiencing delirium. She used family photos in the room to orientate the patient to time and place.'* **(OoP0204, Pg15).** On another occasion, *"a registered nurse spent time with a high dependency patient at end of her night duty shift providing reassurance and info about plans for the day."* **(OoP0106, Pg13)**.

On many occasions nursing staff and NAs were observed talking to patients socially while carrying out observations or administering medications. However, there was little evidence of discussing what the observation results were and what they might mean. Discussions around medications varied, with some nurses, "having lengthier discussions with patients about challenges taking medication." (OoP0308, Pg14). There were also several occasions where the wards had patients with complex needs admitted, and family members or carers would be present throughout the day. It was noted that,

> *"different staff groups were observed talking to the carers socially, but there was little evidence of any shared decision-making documented in the patient's notes. There was also a lack of written evidence related to communication with the carers despite their presence in the rooms throughout the day."* **(OoP0307, Pg15)**.

While the introduction of new communication systems were meant to enhance communication for staff and patients, staff commented that, *"There's actually less communication, it's all electronic."* **(P10, PRG2, Pg10)**. This referred to the impact of the new design on face to face contact, with staff having to rely more on electronic communication. Staff expressed a concern that the bed manager system now in use created tension between the wards. They could no longer see each other's activity in the way they could on the multibedded bays. The tension this created was also reflected in **Section 5.2.3**, and was described as having a negative impact on inter-ward relationships,

> *"I think that makes me feel more isolated and possibly more under pressure because everybody's imagining how…and I hear it all the time that, 'oh they're doing nothing tonight, they've got no corridor beds and, you know, we've got two up'…you might look and say, somewhere's got two beds closed but you don't realise they're closed because they have no staff or things like that. But they just say closed, and you're thinking, well look at them…"* **(P7, PRG2, Pg38).**

Face to face communication between staff remained the most evident form of communication. Registered nurses consulted with each other about particular patients and discussed how or when things might be done, explaining or qualifying their reasoning to their colleagues **(OoP0102, Pg12).** In contrast, there were occasions where concerns

about patients from NAs were not responded to, *"NA spoke to RN saying, 'that wee gentleman is not at all well.' No reaction from the RN. NA waited for a minute then walked away."* ***(OoP0106, Pg12)***. While it was in no way unpleasant or authoritarian, it indicated a subtle hierarchical structure between the registered nurses and NAs. **(reflective journal entry 070318)**. As before, this is likely to have occurred in the old ward. The difference now is that the nurses cannot see the patients. They are unable to cast a casual eye over patients being reported to them, potentially impacting on patient safety. Despite this, staff at different levels were supportive of one another, "a *senior member of nursing staff is observed helping a NA with her appraisal documentation and explaining the process of reflection."* **(OoP0306, Pg17)**.

5.4.3 Opportunities to socialise

In conjunction with the opening of the new building, the Trust had implemented an open visiting policy. This meant visitors could visit any time between 11am and 9pm. Most staff members and patients welcomed this change, and it was clear that having a single-room environment made this much easier. Patients were pleased that there was no restriction on the number of visitors anymore,

> *"…room for visitors that come up to see you like, they can pull a chair in, they can bring an extra chair in if there's more than a couple comes up and you're not claustrophobic, you've great, great space*." **(Pt2, Pg1)**.

In staffs' opinion, it was easier not having to try to talk to several visitors within a short visiting window. They felt they had more time to talk to family members as they came and went during the day. Previously families spent most of the visiting time "queuing up" to speak to the staff,

> *"It's a lot more relaxed yeah, cos if the relatives feel they can come and talk to you whenever, they don't have to wait for a specific time of day, to come and talk to you."* **(P12, PRG3, Pg19)**.

Patients felt visiting was less of a burden on family and friends, especially for those who were working, "*Well my **** comes up every day after work. And then my *** comes up whenever she can. So it's not too bad."* **(Pt1, Pg1)**. Conversely, some staff worried that it was an added burden to families, who now believed they needed to have someone present all the time, *"Some relatives coming in feel obliged…they have to be there…there has to be a rota within the family…that somebody's there from 11 to 9."* **(P10, PRG2, Pg8)**. Staff also felt that family members found the open visiting more reassuring as they could see the care their relative was receiving more spontaneously,

> *"And I think they can see you, cos when they used to come from the 2 o'clock visiting, you tried to clear the decks and let them spend time, and I think they thought you weren't doing anything for their relative, but now they can see clearly that you are."* **(P7, PRG2, Pg23)**.

This appeared to be reassuring for the staff as well as the families, but also reflected previous discussions around invading the patient's space and being under closer scrutiny.

The introduction of the undesignated beds had an impact on the availability of social spaces. The original intention was to have space at strategic points on each ward with soft chairs and a small table, where patients could meet to socialise, addressing the isolation reported by many patients in single rooms. The demand for additional capacity resulted in the undesignated beds being situated in the social spaces. Staff recognised that the absence of common areas for the patients to socialise was a concern, also reflected in **Section 5.4.1**,

> "*I think too the thing with the elderly patients, they're very isolated in those rooms all day and I think a big thing missing here which I've noticed would've been a common area. Where there would have been a tv or a radio or nice pictures on the wall you know, it would engage in conversation you know. A lot of the elderly people have asked is there anywhere where I can go to sit?"* **(P6, PRG1, Pg25).**

There also appeared to be a correlation with the tension between the rooms as social spaces versus clinical spaces as discussed in **Section 5.2.3.** Since there was nowhere else for the patients to go, the rooms became their whole world for the duration of their stay. This resulted in

the ‘ownership’ of the rooms coming into sharper focus. Nursing staff felt an additional pressure created by the new open visiting policy for families wanting to stay overnight. Some family members were unhappy when they discovered that facilities were not available to allow them to do this. The enhanced patient facilities led visitors to expect a similar level of service would be available for them,

> *“…the minute you say, ‘but I can’t get you a bed by the way’, like, ‘there’s no mattresses or nothing available’. ‘Well what do you expect me to sleep on?’ It’s like, ‘well you’ve asked to stay overnight, I can’t provide you a bed’.*” **(P8, PRG2, Pg22)**.

During PRG3, nurses discussed the efforts made to accommodate the families of patients who were at end of life; vulnerable patients such as those with learning difficulties or very young (i.e. under 16 years). They pointed out that the single rooms made it easier for family members to stay in those circumstances, and, *“staff were seen to provide recliner chairs (if available), pillows and blankets for family members staying overnight.”* **(OoP0206, Pg13)**. However issues remained,

> **P13** *“We have a couple of fold-up beds for that purpose…there’s nowhere for them to remove themselves away but still be close, you know, like a tearoom.”*
>
> ***P11*** *“Yeah, like a wee quiet room or something.”* **(PRG3, Pg21)**.

Then again, there were patients who had no visitors during the periods of observation, which might have been up to four hours, *'Staff making no attempt to go and speak to patients on their own. Mainly doing paperwork, pharmacy, stores.'* **(OoP 0204, Pg15)**. There was little, if any, attempt by nursing staff to spend time with these patients even though they recognised that, for some patients, the nurses were their 'visitors', *"…there's other patients that don't have visitors and they're very lonely, you know, unless we're going in…it's us they see as their visitors…"* **(P10, PRG2, Pg8)**. Some AHPs and medical staff did use these periods when patients had no visitors to go through care plans or discuss treatment or investigation results in the patients' rooms. While nurses did not routinely go in and sit with patients who were alone, they did focus on those very vulnerable patients who needed reassurance. Older, confused patients in particular, who did not have regular visitors, needed significant amounts of time and staffing input to provide reassurance. **Appendix 21** paints a picture of a typical scene on one of the wards.

5.5 CHAPTER SUMMARY

This chapter has explored in depth the three themes and ten subthemes identified from the data in this study. They underscore the complexity of working in an acute healthcare environment, within a multiplicity of teams; patient profiles and increasing comorbidities; organisational systems and processes and new developments. While three distinct

themes were identified, there is clear evidence of overlap between the subthemes. Convergence of participants' views was noted in some areas, but there is also evidence of divergence, both in terms of their views about the same subject, and in what they identified as important or problematical. In the following chapter, the themes will be discussed in relation to the existing evidence about the single-room environment. Experiences common to other studies will be acknowledged and explored in relation to knowledge transfer, while the significance of new knowledge materialising from this study will be reflected on in greater detail. The chapter will feature a 'deeper dive' into the impact of the environment on delivery of person-centred practice by staff and how it is experienced by patient.

CHAPTER 6: DISCUSSION

6.1 INTRODUCTION

This chapter explores how the study findings can be understood in the context of person-centred practice. The research question asked how a 100% single-room environment influenced the experience of person-centred practice in an acute-care setting? To answer this question three objectives were set:

1. To explore, from the perspectives of patients/families, the experiences of care within a single-room, acute hospital environment.

2. To explore, from the perspectives of staff, the experiences of working within a single-room, acute hospital environment.

3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

The findings will be explored to address the objectives for this study. Understanding how they illustrate the realities of staff and patient experiences will provide new insights to inform thinking around the benefits and challenges of this environment. This chapter will explore the complexities of designing a new healthcare building within the context of the current guidance. Enhancing patient experience and promoting safer, therapeutic environments have been prioritised nationally and

internationally (European Health Property Network 2011; Department of Health 2014a & b). As a result, the past two decades have seen changes to NHS building guidance to reflect the move toward a single-room environment (NHS Scotland 2008). The relative newness of this environment and therefore the paucity of evidence of its impact on care delivery will be appraised in this chapter. The notion of an apparent psychological shift, for both staff and patients, will be introduced. In keeping with the principles of person-centred research, this study's engagement of staff and patients, and more generally in relation to healthcare design and research, will be considered.

6.2 LIMITATIONS OF THE BUILT ENVIRONMENT

6.2.1 Physical environment

The physical, or built environment is usually the primary focus of attention for healthcare providers and designers. In the current study, patients and staff found the new design pleasing aesthetically, and agreed having control of the room was important. Some patients felt that the physical layout contributed to improved quality of care, relating to privacy, and getting more rest as described in **Sections 5.2.1** and **5.2.2**. This finding is supported in Verheyen *et al.* (2011), who found that patients with control over the environment, felt a greater sense of well-being than those who relied on staff to, for example, change the ambient temperature for them. The positive aspects of nature and light resonated

with participants in Annemans *et al's* study (2012), who experienced feelings of optimism and confidence as a result of the improved clinical space, and this was confirmed by patients in the current study (Section 5.2.2). On the other hand, Shannon et al. (2019) found that the move to an altered physical environment reduced social interaction. Their study with patients suffering a neurological deficit, found the participants kept mostly to their rooms. The authors expressed concern that the room space might not have been sufficient for maximum therapeutic benefit.

For those patients in the current study who did not have a view or were experiencing photosensitivity, the bedscape was a bigger concern in the new environment, with the presence (or absence) of artwork more of an issue (Section 5.2.2). There was also an acknowledgement that patients were personalising the rooms in order to make them feel less intimidating. This reflects the previous discussion in Chapter 2, around ensuring patients have a pleasing and familiar environment to distract them from the clinical equipment around them. Findings such as these have been referred to as "spatial comfort"; factors, enhancing patients' sense of well-being and autonomy (Schreuder et al. 2016), and attributing to the sense of a caring environment (Timmermann and Uhrenfeldt 2014). Edvardsson et al. (2017) found that a homely ward environment did correlate to the perception of nursing care quality, although this did not relate specifically to the single- room environment. Meanwhile, Suess and Mody (2018) revealed that patients found having

control over their environment was more important that being offered distractions such as artwork, resulting in a more positive perception of their experience. This supports previous findings from authors such as Ulrich et al. (2004), on the impact the environment on rest and recovery. It also reflects the findings of the current study, with patients focusing more on the control they had in the rooms, rather than the décor or artwork.

An improved sensory environment encompassing thermal, acoustic, visual and air quality design elements has been recognised as beneficial to patient experience and recovery. This is clear in the design of the building in the current study. Mackrill et al. (2014) goes one step further, describing the benefits to patients of natural sounds such as bird song to help them relax, but warns against achieving this through artificial means as this was likely to be less appealing to patients. The design of the physical environment in the current study prohibits this type of natural soundscape, as the windows cannot be opened, much to the chagrin of both patients and staff (Section 5.2.2). This may be worthy of further study to evaluate the beneficial attributes of nature on healing versus patient safety concerns in the new single-room environment. De Guili et al's. study (2013) found that patients' were more satisfied with the environment than staff, with 40% perceiving a sense of homeliness within the single ward environment. This finding corresponds with those of the current study.

Bonuel (2018) found that in acuity-adaptable rooms, patients were reassured by the amount of clinical equipment in view, giving them a sense of being closely monitored. Within the current study however, for some patients the aesthetic improvement in their surroundings seemed to make them *more* anxious about their clinical care. It was clear that what was perceived to be of value to patients did not appeal to everyone **(Section 5.2.2)**. Relating this to the patient's sense of self, it is clear that while the aesthetic qualities of the environment play an important part in fostering a sense of well-being, they are only one component. In a survey undertaken in the USA and Portugal by Sloan Devlin *et al*. (2016), researchers found patients emphasised the need for distraction, control of the environment and socialisation as the most important aspects of the environment. These authors also reported the more negative comments from patients tended to be related to things going wrong in the room. By providing greater control for patients, there is a greater risk of criticism when things do not work as expected. This was also evident in the current study where staff were expected to resolve problems related to the amenities **(Section 5.3.1)**.

Patients admitted for a short time or following significant surgical procedures in the current study seemed to have a greater appreciation of the privacy of a single room for their recovery. This supports the findings of Alvaro *et al.* (2016), who suggest that patients who view the space positively are more likely to have better physical outcomes. Other patients, given new diagnoses, older persons, and those with acute illness, were

more anxious about the environment in the current study; wanting to be able to see the staff, to feel safe and needing some form of socialisation to overcome their sense of isolation **(Section 5.4.1)**. Bosch et al. (2016) found that while the single-room environment resulted in nurses spending more time with the patients, the patients perceived communication to be slightly worse than previously. The patient experience in this study was evaluated using a survey, so this dissonance was not explored. The current study illustrates that patients also perceive communication to be poorer, because staff spend less time in the rooms **(Section 5.3.3)**.

It became evident from the data that the experiences of the patients were influenced by the improvements in the facilities, and by the visibility and presence of the staff. Patients recognised that staff remained very busy, but it was not clear if this was because they saw less of them, or because of the wider social context of constantly being told the hospitals were under immense pressure. Other studies, such as Kitchens et al. (2018) have suggested that by ensuring services come to the patient rather than the other way round, a person-centred culture is more evident. The patients in Kitchen et al's study felt safer, because staff appeared to spend more time with them; all the services they needed were brought to them creating, they felt, less confusion, and the space was more restful and conducive to recovery. Evans et al. (2018) explore the specific requirements of imaging staff if services are to be brought to the bedside. This raises the question of how designers can

make rooms suitable, not only for the patients, but for the diverse professionals who interact with the patients. Addressing the needs of diverse persons in the built environment to make it truly person- centred, may result in larger working spaces, leading to an even greater walking burden. Judging by the comments of staff in the current study, this is unlikely to be popular. Patients in the current study appeared to feel reassured about their care because the facilities were so much nicer (Section 5.2.3). They expressed increased confidence in the organisation's infection control measures through the visibility of the cleaners and the design of the single room itself. Conversely, there was evidence during the OoPs, that handwashing practice among staff fluctuated, mirroring evidence from previous studies. Work undertaken by Mourshed and Zhao (2012) revealed that healthcare professionals rated the cleanliness and maintenance of the physical environment, higher than the availability of hand washing facilities. Kwok et al. (2017) also found that the ward culture played an important part in staff compliance with infection control practices, with positive role modelling from the ward leader enhancing compliance.

The *relationship* between the experiences of staff and patients has not been clearly defined to date. In the current study, the experiences of the staff centred around the anxiety about the design, giving patients more control, and the lack of visibility of colleagues. The tension between ensuring privacy and maintaining safety (as described in **Section 5.2.3**),

is an example of the pushmi-pullyu©1 sense of ambivalence that recognises the patient's right to privacy, but challenges nurses' accountability for their patients' well-being. The inclusion of ensuite bathrooms may encourage more patients to be independent with their personal hygiene. Staff would support this as a person-centred approach to returning to normality, and patients in the current study appeared to appreciate the more 'normal' environment (Section 5.2.1). As Fawcett and Rhymas (2014) points out however, this approach can present staff with a challenging dichotomy - maintaining privacy while ensuring safety. Meanwhile, patients valued the privacy of being able to close the blinds, but expressed anxiety that staff were not regularly in the rooms. They voiced their appreciation at being able to control the heating/air conditioning, while some staff had concerns around the maintenance of the air conditioning systems and the lack of fresh air. Finally, the personalisation of the rooms made the patients feel less anxious, confirming findings from Clissett et al. (2013) that this provided a sense of identity and connectedness to their life outside the hospital; but it seemed to make staff feel more anxious about "the clutter".

Staff on one ward in the current study had a clear sense of an improved working environment, which, they felt, enhanced the care they delivered to patients. They related this, not to the physical environment, but to changes in the care environment. The number of beds had been reduced

[1] Pushmi-pullyu was a fictional creature in the 1967 film Dr Doolittle. With two heads going in different directions on one body, it can be taken as an illustration of indecisiveness or discord

and staffing remained stable. Although the current study did not collect data on staffing levels, there were views expressed about staffing levels, with nursing staff feeling the single- room design heightened the sense of inadequate staffing levels **(Section 5.4.1)**. Maben et al. (2016) did identify an increase in the staffing establishment and reduction in bed numbers at their study site but were unable to equate the change in staffing and bed numbers directly to the new environment.

Relational aspects of staffing levels; quality of the work environment; and quality and safety of patient care are reflected in the current study, with staff describing spending quality time with patients when staffing levels permitted **(Section 5.4.2)**. Aiken et al's (2012) cross-sectional study involving staff and patients in hospitals across Europe and the USA, reported improved patient satisfaction, quality and safety of care in those hospitals with appropriate nurse staffing levels. This contrasts with Griffiths et al. (2014) who reported a notable lack of credible evidence to support the connection between staffing levels and patient outcomes. Recently there have been attempts to standardise nursing workforce planning using care hours per patient day, in acute adult inpatient settings (National Quality Board, 2015). More specifically, Hurst (2009) and Ulrich et al. (2010) both reported on the impact of the single-room environment on workforce issues. Both these reports have to be treated cautiously. Hurst's report is a comparative workload assessment, encompassing a small number of single-room environments, postulating

that this design might require increased staffing levels. Ulrich *et al's* (2010) development of a conceptual framework, provides no evidence about staffing levels required for the single-room environment but does identify the causal relationship between design features and staff retention. This illustrates the challenge facing the organisation in the current study, who, recognising the anxiety around staffing, attempted to provide some additionality. However, as the staff pointed out, the single-room environment was more difficult to cover, particularly outside core working hours. As a result, the leadership role often had to be sacrificed to ensure all the patients could be cared for safely**(Section 5.3.2)**.

Staff in the current study were very clear, that to be person-centred practitioners required time, which the current staffing compliment did not allow for. The literature would suggest this is a common perception of staff, with Bolster and Manias (2010) and Doherty and Thompson (2014) highlighting staff's concern about the amount of time it took to be person-centred. Stajduhar *et al*. (2010) however, discovered in their study with cancer patients, that it was not the "time in minutes" that mattered to the patients, but the quality of any time spent. This was also evident in the current study with data in **Section 5.3.3.** illustrating examples where staff used time in the room to engage meaningfully with patients and families, while others failed to identify opportunities for person-centredness while carrying out routine tasks. This issue of time needed, highlights the tension between the organisational vision to provide person-centred practice,

and the reality of workforce challenges currently being experienced world-wide, as described by Aiken *et al.* (2014). Their study focused on the working environment, defined here as "*managerial support for nursing care, shared decision-making, and good doctor-nurse relationships*." These concepts fit within a person-centred ethos, linking the impact of the care environment to patient outcomes. Peršolja (2018) argues that in some healthcare systems, nurse to patient ratios include the nursing family, i.e. registered and unregistered nurses, which may influence reports related to patient outcomes. They argue the need to be explicit about the number of registered nurses per patient to accurately assess the impact of nursing ratios. While the evidence around skill mix, nurse staffing levels and patient outcomes shows some correlation, it is primarily casual and therefore subject to bias, according to Griffiths *et al*. (2016). However, there currently appears to be no empirical evidence on the appropriate skill mix for the single-room environment.

Some staff in the current study felt under more pressure because of the increase in beds. Vacancy levels subverted any impact from an increase in overall staffing establishment agreed by the organisation. The increased walking burden described in **Sections 5.2.2** and **5.2.4**, and distance from other services which reduced time spent with patients was a key finding. This is consistent with other reports of the walking burden, such as Maben *et al*. (2016). These authors suggest concern about the lack of visibility may induce staff to spend more time walking around the ward.

In contrast, Hua *et al. (*2012) found the walking burden was reduced after moving to a single-room environment, with a new layout. Their results confirmed that it was the redesign of the staff bases that had the most impact. By including several identical staff bases rather than one main base and several pods, they were able to show a significant reduction in the walking burden. This would appear to be contradicted in the current study. A similar layout of staff bases did not seem to impact significantly on staffs' perception of their walking burden. Several other studies have provided conflicting results on this issue. The results must be treated with some caution, because while all the studies took place in single-room environments, the re-design focused on changing the siting of the staff bases.

All the wards in the current study had been designed to a similar configuration **(Appendix 5)**, but the services within the wards were set up slightly differently to meet care delivery needs. Staff in Maben *et al*'s (2015) study recognised the improvement in storage facilities, but also had to adapt to different ways of working to maximise the time spent with patients. These authors recommend centralising facilities to minimise walking distances. Miller *et al.* (2016) suggest prioritising the most important and most frequently used items and ensuring they are readily accessible within the work area. This ethos may result in a centralised approach being inappropriate in a race-track or L-shape design. Fay *et al.* (2017) found the walking burden was increased because it was not only the location of the staff bases which had an impact, but the location of

storage space and medication rooms. Nazarian *et al.* (2018) found that more than 50% of nurses' journeys either began or ended at the staff base, so focusing on where they were sited at the design stage could address some of the issues related to the distances travelled during a shift. Given the concerns expressed in studies such as that of Hendrich *et al.* (2008), relating increased walking to decreased time for patient care, it is easy to understand the overwhelming feeling for staff in the current study of needing more time prior to the move to study the workflow patterns on the ward **(Section 5.2.4)**.

6.2.2 Systems and processes

In **Section 5.2.3**, the challenge of risk assessing patients meant nurses in the current study were required to make decisions about which room patients were allocated to. As a result, some vulnerable patients were less visible. This is borne out by the findings in Bosch *et al.* (2016), who suggest that the challenge of managing a ward full of vulnerable patients means not all may be clearly visible, heightening staff anxiety around patient safety. Conversely, during the current study, staffs' constant risk assessing emphasised the tension between the privacy, so important to patients, and staffs' resultant inability to adequately surveil rooms. Alternatively, the multidimensional healthcare building may be influenced by one dimension within it, according to Bayer (2018). By enhancing the experience for

patients in the single-room environment through noise reduction, staff concentration levels should also be improved, because of decreased distraction from background noise. Engaging with staff to look at the environment through a person-centred lens, Beardsmore and McSherry (2017) explored how to promote a healthful culture, including safety, using supportive organisational systems. They identified four key elements: *professional practice, support, workforce, and service delivery*, which they argued, needed to be considered to ensure patient safety is maintained and compassionate care is delivered. These findings are similar to the constructs of *prerequisites, the care environment, and person-centred processes* within the Person-centred Practice Framework (McCormack and McCance 2017), as key attributes for care delivery.

In the current study, patients now had access to a call system to summon assistance **(Section 5.2.2)**. This system was meant to reassure patients, particularly those who might feel isolated. Receiving attention increases a sense of worth, and according to Sjöberg *et al.* (2019), helps patients to endure being dependent on others. Nelson and Staffileno (2017) support using a *"pod buddy"* system developed to ensure call bells were always answered promptly. However, Deitrick *et al*. (2006) identified the importance of understanding these systems from the perspectives of patients *and* staff. In a study carried out by Persson *et al.* (2015), patients reported feeling insecure because of the length of time it took for staff to answer the call system.

Although the system used in the current study site was designed for two-way conversations, so patients could talk to staff directly, only staff used it; to contact each other. VanHeuvelen (2019) describes the benefits of such a system for staff to alert colleagues when a patient needs assistance; a less formalised buddy system. A system which does not work as intended has consequences for the organisation if it impacts on the public's experience. Instead of being regarded as a way of meaningfully engaging with patients, reassuring them about the new environment, the focus becomes the processes around the equipment rather than the person-centred processes. This is counter-intuitive in relation to the meaning of person-centred processes as defined by McCance and McCormack, which are "*often interwoven in the delivery of care.*" (2017, p.54). Hospitals are unfamiliar environments to patients. The new single-room environment is unfamiliar to both staff and patients. As a result, recognising patients' need to feel safe in an unfamiliar environment, becomes a secondary focus, when staff themselves are anxious about systems and processes, which fail to work as planned.

6.2.3 Person-centred buildings

The new ward block in this study has a duality of purpose, reflecting Lavender *et al*'s (2020) description of the single-room environment as a healing space for patients, and as a workspace for staff. This is laudable and is in keeping with the aim of making these modern buildings, more healthful environments for patients

and staff. Much of the current research focuses on the environment for patients, such as Annemans *et al's* study (2012) into a new facility for cancer patients. Others have sought to understand the nursing work environment and how it can become more person-centred (Slater e*t al.* 2009). While participants in the current study agreed the new building provided much improved surroundings for the patients, it was evident from the data, that making the building person- centred requires further work to address issues such as patient safety; loneliness; and working in the space.

Staff were aware of the potential impact of reduced visibility on patient falls, and used frequent risk assessments **(Section 5.2.3)**, and the increased number of handovers in the new environment to alert colleagues to susceptible patients **(Section 5.3.2)**. Pati *et al*. (2018) took a novel approach to understand the factors contributing to patients' falls in hospital. They programmed a variety of scenarios into a computer program, focusing on what triggered falls. They found that the furniture in the room needed further development and that falls often happened in the bathrooms. This has consequences for the single-room environment, which include ensuite bathrooms, and where visibility is reduced.

The concerns relating to patient safety in single rooms are well documented, with Simon *et al.* (2016) reviewing data on infections and nurse-related patient safety outcomes in a new 100% single-room hospital and finding no evidence of a correlation. Darley *et al.* (2018) focused on the single issue of healthcare associated infections (HCAIs) following the move to a 75% single-room environment. They demonstrated that the increase in single rooms resulted in a reduction in beds days and ward closures. However, they also accepted that changes to infection control processes prior to the move, such as deep cleaning, might have influenced their results. In a similar way, during the current study, staff discussed the reasons for an increase in IPC related issues following the move to the new ward block. They felt it could be due in part to the introduction of a new open visiting policy, resulting in less control over who entered the ward **(Section 5.2.3)**. This demonstrates the importance of engaging with staff around the introduction of new policies and processes in advance of a major move, to assuage concerns and ensure appropriate application.

In the current study, patients did identify feeling isolated in the rooms, and this was not just older people. The youngest participant recognised the potential for patients confined to their rooms to be very lonely, and another young participant became very emotional when describing the lack of visitors. These feelings of isolation and vulnerability have been previously identified in other studies (Singh *et al*. 2016). Such examples

illustrate the need to be careful about making assumptions of which patients will experience loneliness and isolation in the rooms. In the current study, participants expressed notions of feeling abandoned in the rooms **(Sections 5.4.1** and **5.4.2)**. This resulted from a sense of 'out of sight, out of mind' relating to discharge planning, making patients feel more isolated. Futility around having control over the discharge process and frustration that staff fail to communicate plans to patients was also a finding in Webster *et al*'s study (2019), where patients were asked to keep a diary of their discharge experience. Despite the aspirational goal of person- centred shared decision-making and authentic engagement between staff and patients, the single rooms in the current study appeared to heighten patients' sense of having no-one to talk to about their worries, in particular relating to discharge.

Many nurses in the current study seemed concerned that because they perceived the patient to feel lonely or afraid, starting a conversation in the room would mean they would be there for a prolonged period. They felt this would, in turn, create the potential for other patients to miss aspects of their nursing care. Hessels *et al*. (2015) found that that although nurses were primarily responsible for surveillance, caring for patients and coordinating care, these were the aspects of care that were most frequently missed. This is a real concern for nurses in general as they seek to complete the tasks key to patients' recovery. Medication administration, hygiene, and general surveillance to prevent deterioration

must be performed, alongside developing a healthful relationship with patients. The added responsibility of providing reassurance through visible presence was previously delivered covertly on an open ward, merely by being present in a bay **(Section 5.4.1)**. Now staff were required to be physically present in the room. Patients who spend long periods alone value the time and attention from staff which reflects their value as persons to others according to Sjöberg *et al*. (2019).

Patients in the current study revealed their reluctance to talk during the ward round, but appreciated the time taken by some professionals for one-to-one conversations. This allowed them to express their fears more openly in the privacy of the single room **(Section 5.4.1)**. Existential loneliness, defined as *"an immediate awareness of being fundamentally separated from other people and from the universe*." (Bolmsjö *et al.* 2019), could be a problem for many patients in the single-room environment. The efforts made to enhance the patient experience by reducing noise, such as controlling when the doors were open or shut as discussed in **Section 5.2.2**, and the additional soundproofing could be considered to have a negative impact on some patients. People may have good social contacts and meaningful family relationships but being admitted to a single room can leave them feeling separated from the world around them, even briefly. For people experiencing life threatening or life limiting experiences in hospital, loneliness is an emotional experience that cannot always be shared with family or friends.

Even when social spaces have been created to address the issue of loneliness and isolation created by the single rooms, Anäker *et al.* (2019) found it is not always possible for such individuals to make use of them because of their frailty. As a result, they are confined to their rooms. These authors suggest staff must be more aware of the need to visit the patients more often in the single-room environment to enhance the care experience. It was clear in the current study that staff were aware of patients' isolation, but the demands on them left them feeling powerless to give any more of their time **(Section 5.4.1)**. This apparent struggle is mirrored organisationally, as we see the divergence between the expressed values of person-centredness, struggling against a target driven culture (Winsett *et al.* 2016).This resulted in an absence of visible senior leadership at this time of change, as the organisation moved on to address other priorities. Evidence during the current study of an organisation under pressure (the presence of undesignated beds on the wards), combined with staff feeling undervalued, perpetuates the sense of a *patient*-centred culture; to see and treat patients in a timely manner, rather than one that is *person*-centred, delivering care in a co-productive relationship between staff and patients.

Being with patients at a point in time, such as planned episodes of care; working with them to address their concerns and feelings, increases the quality of the encounter. This facilitates a therapeutic relationship,

becoming part of the embodied experience of delivering person-centred care (McCormack *et al*. 2013, p.278). These conversations may be short, related to one aspect of care or one patient concern, but with a focus on hearing from the patient, not just passing the time socially, or completing a task. While staff may feel a quick “how are you?” at the door assures patients they have not been forgotten about, it is unlikely to assuage patient’s feelings of anxiety.

Many patients in the current study commented on staff ‘chatting from the door’, and this was often observed too **(Section 5.3.3)**. While patients attributed this to staff’s ‘busyness’, it was clear from the discussions in the PRGs that the reason was also partly to do with nursing staffs’ discomfort of being in the rooms. VanHeuvelen (2019) describes doorway discussions between staff as a means of keeping contact with one another, rather than as a means of communicating with patients, while other studies such as Donetto *et al.* (2017) have detailed the impact of reduced visibility, confidentiality and privacy. However, there appears to be no evidence to date on the impact of staffs’ sense of unease, suggesting further work is required to better understand this dynamic in the single-room environment within general ward settings.

Delivering regular task-focused care appeared to be easier for staff than evidencing the other attributes of person-centredness around communication and power-sharing. In the

current study, while staff felt this was acceptable, there was evidence that patients were less convinced of the value of these interactions **(Section 5.3.3)**. Regular contact with staff had more of an impact on patients judged to have a higher acuity. Staff in the PRGs felt that this was how it should be when patients came into hospital. Patients were admitted because they were ill, or to have a problem solved, so they could return home. This speaks to the pressure staff feel under in the current system, to get patients through as quickly as possible, in order that other patients can be admitted. While this may work for some patients, for the majority, the anxiety of being in hospital, the complexity of their condition, and the vulnerability of feeling alone and invisible are heightened in the single rooms, resulting in a need for reassurance from staff. Sjöberg *et al*. (2019) points out however, that older people may value some time alone to reflect on their lives and perhaps make decisions about their future. The challenge for person-centred practitioners working with patients beliefs and values, is to be able to recognise when patients needs to be alone, and when socialisation is required.

During the current study three, night duty shifts were observed. There were several occasions when patients either left their rooms or refused to go into to them following admission at night, for fear of being left alone **(Section 5.4.1)**. In the main, these were older people, confused by their

surroundings. Their anxiety was palpable and was handled for the most part with kindness and understanding by the staff. However, it did place a burden on staff who now had to manage patients who were awake all night (even when their beds were brought out of the single rooms and placed at the staff base), and who could not be left alone in case they wandered off. Other studies, such as Brooke and Semlyen (2019) found that even when the new environment was designed specifically for people living with dementia, the staff argued that it did not improve the care because staffing levels had not been addressed as part of the improvement. The introduction of a single- room environment has the capacity to be particularly trying for people at night, when visitors have left, and staff are less available than during the day. This lack of presence may result in patients feeling unsafe as well as lonely, which increases their vulnerability. Mollon (2014) describes how establishing a trustful staff-patient relationship results in patients feeling safer. This can be achieved by visible presence to ask and answer patient questions. The findings of the current study would suggest this may be more challenging in the single-room environment.

The current study demonstrates the consideration given to a pleasant, less clinical environment for patients **(Sections 5.2.1** and **5.4.1)**, describing the natural views, light, and control features in the rooms. Aiming to create person-centred physical environments in healthcare settings is aspirational, though potentially fraught with difficulty. The built environment

is often easier to design as it is clear what the basic requirements will be. Then again, Gesler *et al. (*2004) identify the most significant challenge to be that of meeting the needs and wishes of all the people who traverse the building. Creating a person-centred building requires ensuring every area of the building is designed for disparate users. To accomplish this means the design process must be person-centred. Staff in the current study complained about the limited space in the staff room **(Section 5.2.2)**, where designers had not considered the number of personnel who might wish to use it, especially at mealtimes. They felt this was a further demonstration of the lack of care and consideration for them in the new environment.

A collaborative planning approach, according to Elf *et al*. (2015), demonstrates to staff how they are valued by the organisation. While this approach has been linked to higher quality patient care it rarely appears to happen. In the current study, staff identified that there was insufficient "*offstage*" space **(Section 5.2.4)**, as defined by Brown (2009). He describes designing staff bases with "*onstage*" and "*offstage*" areas, with patients clearly able to see staff in the onstage area. Offstage, staff can hold team meetings, store records and engage in computer activities or private telephone calls. This meets the requirement for multidimensional workspaces, and facilitates multidisciplinary working, as the spaces are not owned by individual groups. This resonates with Polit and Beck's

(2018) concept of "*frontstage*" and "*backstage*" discussed in **Section 4.10.2**. In the current study, it was observed that staff were never "offstage", as all the administrative areas had floor length windows, so patients and families could see them. Additionally, all the staff bases were open so when staff were performing a handover or writing in the patients' notes, they were clearly visible **(Section 5.3.2)**.

In the current study, staff expressed frustration that there had been a lack of a joined-up approach between the designers, management and staff **(Section 5.4.2)**. This conflict is also evident in the study carried out by Annemans *et al.* (2017). They used a case-study approach to describe how designers were interested in understanding the patient experience as they moved through a building. On the other hand, senior managers were more concerned with what design solutions were available to address specific challenges, feeling they were already familiar with the healthcare environment. Previously, Bromley (2012) undertook a revealing study with administrators and designers of a new hospital. which demonstrated a changed way of thinking about hospital care. Patient centredness was now viewed as a dynamic process of consumerism, where the design effort should focus on ensuring the work of hospitals was invisible to patients. There was also a suggestion that the focus on employing staff should be on their customer service skills rather than their professional abilities. While this radical move may sound alarming, the author discusses the possibility that by encouraging staff to engage with patients as consumers, communication and patient empowerment are brought to the fore,

improving care delivery. In the current study, this concept of a hotel culture was greeted warmly by patients, but less enthusiastically by staff **(Section 5.3.1)**, who suggested the purpose of the building as a hospital not a hotel, needed to be maintained.

In the current study, staff agreed that the facilities for patients were a big improvement; the same, they felt, could not be said about the facilities for them. They acknowledged that the working environment was more pleasant but felt aggrieved about the lack of toilet facilities in particular. Given the busyness of the ward, some staff articulated that they managed the situation by reducing their fluid intake. This was a concern, since evidence from El-Sharkawy *et al.* (2016) suggests that inadequate hydration leads to headaches and fatigue, reduced alertness and poor concentration levels. Some nurses did report feeling more tired, with flu-like symptoms at the end of shifts, which they attributed to the air conditioning system, but which may have been due to mild dehydration. Such findings contradict those from Alvaro *et al*. (2016), who found an association between improved facilities and staff satisfaction. This was also present in a previous study by Cone *et al.* (2010). They found that having time to examine workflow issues reduced staff anxiety about the new environment. Being given time to consider how the storage space placement might improve workflow practices, also enhanced staffs' appreciation of a new unit. This connectivity of staff engagement to quality of care provision is identified by Dawson (2014) in a review of current studies linking staff experience to patient outcomes. It is also in keeping

with the findings of the current study, of insufficient time to prepare for the move, resulting in time spent ‘fixings things’ post move **(Section 5.2.4)**.

Healthful cultures within organisations, are described by McCance and McCormack (2017, p.60) as necessary for the delivery of person-centred care. The example given above about the lack of staff facilities, provides evidence from staff of, not only any negative impact on their physical well-being, but a sense of being under-valued. This may reinforce their sense of oppression discussed in **Section 3.2.4.1** and constrain their efforts to be person-centred practitioners. As a result, they reverted to fixed rituals that reflected their professional beliefs and values. This lack of power was reflected in the work of Sharp *et al.* (2018), with nursing staff feeling the system controlled them, they had no control over the system. Consequently, while they expressed a desire to work in a person-centred way, they practiced task-focused care, because it was a way for the group to get things done. This was evident in the current study, where tasks were prioritised and there was less evidence of meaningful conversation **(Sections 5.3.2** and **5.4.2)**.

Staff self-assessment tools such as the Person-centred Practice Inventory for Staff (Slater *et al*. 2017), can reflect a knowledge of the importance of prerequisites, the care environment and person-centred processes. The reality however, would suggest a lack of exposure to authentic engagement and power sharing is likely to be reflected in the relationship between staff

and patients and the existence of person-centred practice (Clissett *et al*. 2013). This is accentuated in the single-room environment, where staff have less contact with one another, and patients feel they have less time with staff.

6.3 ORGANISING AND DELIVERING CARE

6.3.1 Hospitals as hotels

The research reported here demonstrated that there was a dichotomy between nurses wanting to spend time in the rooms but feeling discomfited to the point where their visits became task focused. This was something they appeared unprepared for, and it resulted in a sense of psychological uncertainty, where they were no longer in control but were now viewed (and viewed themselves) as "visitors." Patients' increased control over their physical surroundings made staff feel uncomfortable, with the result that they were less likely to spend time in the rooms because they felt they were "invading the patient's space." **(Section 5.3.1)**. This finding was also described by Donetto *et al.* (2017), although here the staff related their discomfort to the presence of visitors. This sense of insecurity may result from the unanticipated 'shift' in the perceived control within the wards. Previously healthcare staff generally saw the hospital as their domain, where they asserted control over what happened and when. Patients acquiesced to this paternalistic model, accepting that as recipients of care, their beliefs and values were less important. This provided staff with

stability in an increasingly complex, target-driven arena. Foucault (1982) describes this form of power as subjugation by *"control and dependence."* As public expectations have risen, and with the introduction of the single-room environment, patients now have an expectation of a greater degree of control. This means that staff must explore how they can reconcile this contextual change in culture, which Boomer and McCance (2017, p.210) describe as working in partnership with patients/families/ carers.

The notion of a hotel culture has been previously described in the literature, with a focus on improving patient experience. Much of the literature originates from the United States of America (USA), such as Beers and O'Shea (2010), who describe the increasing demand for hospital rooms to accommodate family members, heightening the comparison with hotel accommodation. In the current study, staff described differing feelings about families' expectations of overnight accommodation **(Section 5.4.3)**, aligned to a general feeling that public expectations had been heightened with the less clinical appearance of the wards **(Section 5.3.1)**. Some staff did discuss their consternation around visitors heightened expectations that open visiting included overnight stays for social reasons. Others were much more relaxed about this, recognising the mutual benefit for patients, visitors and staff as evidenced in **Section 5.4.3**. Patterson *et al*. (2019) describe the benefits of having family members visiting for long periods and staying overnight. However, their study took place in the USA in an environment where many of the single rooms included not only

an ensuite bathroom but a family area, with a sofa beds, table, chairs and electricity outlets. While it can be argued that this is indeed a person-centred facility, catering for family as well as patients, these are not included in plans for single-room inpatient wards in the UK at present.

One to one communication was identified as one of the lessons hospitals can learn from the hotel industry (Zygourakis *et al*. 2014). These authors argued that detailing how systems work and identifying the various members of the healthcare team to patients, so they know who is involved in their treatment, offers reassurance and reduces complaints. This paper also acknowledges that staff satisfaction translates to patient satisfaction, so a culture of staff engagement and development opportunities is also key.

The introduction of an open visiting policy at the same time as the opening of the new ward black aimed to address the socialisation and loneliness issues created by the new ward design by facilitating practical and psychological support for the patients. This development was generally greeted very positively by both patients and staff, with both recognising the benefits of having visitors coming throughout the day, rather than in higher concentrations at visiting times **(Section 5.4.3)**.

Some of the papers in the Literature review (Chapter 2) outlined how single rooms enhance interactions with families (Bevan *et al*. 2016; Singh *et al*. 2016). Mackie *et al.* (2019) have recently explored the benefits of

family participation on a general acute ward. Previously, Rosenbloom-Brunton *et al*. (2010) explored family participation in a program for elderly patients with delirium, while Ewart *et al*. (2014) explored working with families of cardiac patients in an acute cardiology ward. All these studies involved flexible family visiting and working in partnership with families to support patients. Patients in the current study felt the open visiting policy made it easier for family members to avoid busy times for travelling and gave more options of when to visit. Staff on the other hand, worried that some families took on an extra burden by trying to ensure there was a family member there all day **(Section 5.4.3)**.

While a hotel offers a similar style (homogeneous) service generally, it was clear that within each of the participating wards in the current study, there were more heterogeneous (varied) practices. Wards were identified by specialty, with patients of mixed genders, ages, ethnic and social backgrounds, reflecting the challenge for staff of working with such a multiplicity of beliefs and values. Pannick *et al*. (2019) found when they interviewed patients in similar specialty wards within the NHS, that patients overriding concern was the standard of care they received, regardless of the perceived standards on the ward as a whole. During the interviews for the current study, patients were primarily concerned with their own care, but were able to recognise the impact of the single rooms on other patients, principally those who were older **(Section 5.4.1)**. Howard *et al*'s study (2014) in Ireland, took place in two hospices. They

found participants did not express a preference for a single room but did not provide any information on the reasons behind this. In contrast, Bevan *et al*. (2015) carried out a study on older people's experience in both single and multibedded wards in two hospitals. Their findings suggest patients perceived being better able to maintain a sense of dignity and perceived a higher quality of care in the single-room environment. While patients in the current study did not have the option of the environment they are admitted to, staff were aware that not all of them were happy to be in a single-room environment, citing lack of contact with staff as the major concern **(Section 5.3.3)**.

When hotels are full, they advertise *no vacancies* so that the public know they must look elsewhere. This is where the concept of healthcare as a service industry diverges, especially within the NHS. While patients may be advised to seek treatment elsewhere, those needing admission must be found a bed. There was clear evidence of this pressure during this study, with the presence of "undesignated beds" on all the participating wards. As a regular problem within health services globally, there has been a deluge of headlines around trolley waits; corridor beds; ambulance ramping (ambulances queueing outside Emergency Departments), that are a daily feature of the system now (Owen 2018; BBC News Wales 2018).

While managing the increasing activity demands has been a challenge for some years, the presence of undesignated beds in this new physical environment highlighted additional exigencies that staff were not prepared

for. This was evidenced by issues related to these beds in several subthemes **(Sections 5.2.3, 5.2.4** and **5.4.3)**. Patients in the undesignated beds could see the facilities provided in the single rooms and some became more demanding to receive the same. There was less acceptance of the pressures on staff as there would have been on the previous wards where patients were all perceived to be receiving the same level of service. The heightened public expectations led to some conflict, and staff were acutely aware that the public equated improved physical surroundings with improved standards of care, as discussed in **(Section 5.2.3)**. Staff felt the public were given a false impression that the inherent frailties in the system, such as workforce and capacity and demand issues, had been addressed alongside the improvement in the environment. This speaks to the current focus on creating a healing environment by avoiding a clinical appearance in new hospitals, described by Bromley (2012) as humanising the environment. However, the introduction of aesthetic environments to deliver services improving the physical and psychological outcomes for patients can conflict with the capacity demands of the system. This makes it increasingly challenging for staff to fully engage in person-centred processes. As yet, there appears to be no evidence of how these competing demands can be addressed.

One implication of the continued use of undesignated beds in this new environment is their impact on the equality of service being provided to

patients. The current study demonstrates how the introduction of a new physical environment, brings another variable into play around the delivery of an equitable service. Patients admitted into an undesignated bed, observing all (or most) other patients in a comfortable room with ensuite facilities, TV and room for several visitors, sometimes led to anguish and conflict **(Section 5.2.4)**. Sizmur and Körner (2013) explored data from an NHS inpatient survey which confirmed that marginalised groups still feel they are treated with a lack of dignity and respect generally. To date, many of the management strategies around bed management have been directed towards preventing admissions and expediting discharges. Ardagh (2015) suggests a team approach with an overview of system pressures, where actions can be initiated to reduce the number of extra beds needed during periods of high demand. During the current study, despite the presence of undesignated beds on all the participating wards, there was a notable lack of visible senior leadership to manage patient flow issues **(Section 5.2.3)**.

Staff now have to manage a changed dynamic, and this requires development of key interpersonal skills such as communication and building rapport to manage these potentially challenging situations. Staff will also have to be mindful of the perception of gender, race and cultural bias when deciding between the allocation of a single room or an undesignated bed. Mahon and Nicotera (2011) found that nurses tend to

avoid direct conflict, although they acted appropriately when in that situation. This may be possible in current ward environments where there is a mix of single and multioccupancy beds. Sound clinical reasons can be given for the beds patients are allocated to. However, as hospitals move toward an increasingly single-room, hotel-type environment, organisations who permit the presence of undesignated beds, must be cognisant of the support needed by staff to manage the public's expectations. Staff will increasingly have to reflect on their practice relative to these external factors, to clarify the credibility of their own beliefs and values, and their impact on meaningful engagement with patients in this new environment.

6.3.2 Communication and engagement

Patients' care experience and involvement in care are predicated on the degree of communication they have with staff. The patients in the current study were, for the most part, happy with the care they received, but some equated the quality of care with how good/poor the communication was **(Section 5.4.1)**. Chan *et al.* (2011) reveal that staff who view communication as another task to be completed, regard it as time consuming. Finefrock *et al.* (2018) confirmed this, when they explored the impact of communication in an emergency department setting. This study found that clinicians' acknowledgement of patients' time as equally valuable, impacted on patients' perspectives of their experience. For all healthcare professionals, understanding the patient's beliefs and values is key to understanding their concerns and helping them with decision-

making. Politi and Street (2010) describe this as '*shared mind'* communication, and emphasise the time needed to compromise on decision-making by establishing common ground. A person-centred assessment helps staff to build a relationship with patients based on mutual trust and respect (McCance and McCormack 2017, p.54). By clarifying their beliefs and values (Broderick and Coffey 2013), staff can begin to understand patients' fears and anxieties, and give them the information they need to understand potential treatment options (Laird *et al.* 2015). Identifying any misconceptions in relation to expectations, allows them to work together to agree goals that are mutually acceptable.

The single-room environment increased expectations of enhanced opportunities for staff to be with patients in surroundings which enabled meaningful conversations. While there is *space* for more sympathetic presencing, encouraging patients to speak more openly, to facilitate knowing and authentic engagement, *time* remains an issue as evidenced by staff and patients in the current study **(Section 5.3.3)**. It was notable that during some observations, the issue was less about time, more about the discomfort of invading the patient's space also described in **Section 5.3.3**. The introduction of the single rooms was meant to address issues such as those uncovered in Persson and Määttä (2012), related to limited private conversations in multi-bedded bays. Lavender *et al.* (2015) also found AHPs complained of confidentiality issues when completing patient

assessments. The “quasi-formal” nature of conversations, defined by Chan *et al.*(2011), describe those conversations that are psychosocial in nature, providing the deepest insight into the patient’s beliefs, values and concerns. Ford (1990) describes caring for “*as a way of doing*” while caring is a “*way of being*.” Pomey *et al.* (2015) describe the experience of some patients with chronic conditions, who use adaptation to enhance their potential outcomes, even when it was clear staff did not want to adopt partnership working. This suggests as example of staff adopting a caring for approach. Both approaches were evident in the current study, with staff often focused on tasks, interspersed by staff performing acts of caring, such as the NA observed encouraged an lady suffering from delirium to talk about her family **(Section 5.4.2)**.

Findings from the current study suggest that while the nurses care for the patients, the role of caring; by spending time with patients to engage in those quasi-formal conversations is being taken up by the NAs. This raises the question of the attention given to identifying the prerequisites of this workforce to ensure they feel able to ask probing questions; listen attentively; and pick up the non-verbal clues which lead to meaningful conversations. Developed interpersonal skills as described in the Person-centred Practice Framework (Chapter 1)**(Figure 1)**, also relates to the communications between registered and non-registered nursing staff. If it is accepted that the NAs will spend more time in the single rooms talking to patients, then the information gathered from those conversations must be communicated to the rest of the team, especially the registered

nurses, either verbally or in writing. This speaks to the constructs of effective staff relationships and power sharing within the Person-centred Practice Framework (McCance and McCormack 2017, p.50), illustrating the importance of the team approach to care, and valuing all the team members and their contribution to caring.

It was notable during the current study that nursing staff were selective about what they recorded in the patients' notes **(Section 5.3.2)**. This appeared to reflect the tension between writing what is required for legal reasons and writing about what matters to the person. One reason constantly given for the lack of time nurses have to spend with patients is the amount of documentation they now have to complete (Ausserhofer *et al*. 2014; Petkovšek-Gregorin and Skela-Savič 2015). The documentation burden has increased significantly over the past 20 years, and while there are increasing moves towards electronic care records (DHSSPS 2013b), in many hospitals within the NHS paper records are still the norm. The findings from this study suggest that a change in ward design did not lead to an obvious change in practice, with documentation still being completed at the staff bases. This correlated with findings from Gum *et al.* (2012), who suggest the staff base is a symbol of power. By completing the patient notes at the staff base, there may be a subconscious desire to re-assert ownership of the space. Broderick and Coffey (2013) also found that much of the nursing documentation centred on physical care, while the broader aspects of the care environment such as psychological care were

absent, and this was evident in the current study too **(Section 5.3.2)**. Kamil *et al*. (2018) found that nurses tended to devalue documentation despite their professional beliefs and values about the importance of documentation for patient care. These authors argued that the lack of regular auditing mechanisms suggested to the staff that the organisation placed little or no value on the nursing contribution to the patient records. This suggests that nurses only value documentation as evidence of the number of interactions with patients rather than the value of those interactions as stated by the Nursing and Midwifery Code of Conduct (2018),

> *"identify any risks or problems that have arisen, and the steps taken to deal with them, so that colleagues who use the records have all the information they need"* (NMC 2018, p.11, 10.2).

Making documentation more person-centred continues to be a cultural challenge within healthcare, with staff as yet unable to maximise the new opportunities available to them in the single-room environment. While there is an assumption that negative behaviours may be the result of negative cultures, this is an oversimplification. Kellie *et al*. (2012) were able to identify how ward staff could affect attitudinal changes to reflect their professional beliefs and values, through a leadership initiative to improve working practice. Such initiatives take time and prolonged periods of support to be successful but can be designed to begin when the physical environment is changing.

The findings from the current study draw attention to more task-focused practices being adopted in the single-room design, such as observations and “washes” **(Section 5.3.2)**. There were opportunities for dyadic approaches, where the patient and family are also counted as members of the team **(Section 5.3.3)**. This reflects work by Choi and Bosch (2013) which, although it takes place in an intensive care setting, illustrates the potential benefits of facilitating family engagement in patient care. In contrast, Wolf *et al*. (2017) evidenced how patients seemed to equate participation with information *sharing*, but not necessarily shared decision-making. The participants were reassured that professionals were competent to make the decisions and were satisfied in feeling that they were being kept informed. This was illustrated in the comments in one of the PRGs in the current study, that patients wanted staff to take control **(Section 5.3.2)**. This perception of control may be undermined by one of the findings in the current study illuminating the experience of nursing staff as visitors. This was also uncovered by Donetto *et al*. (2017), who described staffs’ sense of intrusion when entering the patient’s room. One study has specifically studied the variety of people going into patient rooms (Arbogast *et al*. 2019). While this study demonstrates the range of individuals and the number of visits, it does not provide any evidence on the quality of engagement or time spent, in the rooms.

One of the strategic drivers behind the introduction of the single-room environment was improving patient experience. This resulted from high

profile public inquiries in the UK such as the Francis Report (2013), which recommended improved privacy and dignity for patients. Single patient rooms can ensure the privacy and dignity dimensions are realised, but other factors relating to good patient experiences such as communication and engagement with staff, may be compromised. This was evident in the current study, with patients recounting their pleasure at the privacy of the rooms and having their own bathrooms **(Section 5.2.1)**.

Unfortunately, they also recounted experiences of a lack of communication with staff, and anxiety around a lack of visibility **(Section 5.4.1)**. Curtis and Northcott (2016) found in a paediatric study, that family members felt they had fewer opportunities to interact with staff in the single-room environment. They also found it more difficult to judge when staff were busy, because they could not always see what staff were doing. This supported previous findings by Hendrich *et al.* (2008) that in a built environment with reduced visibility, staff's ability to carry out other duties while being able to see their patients (and be seen by them) was reduced. The contrast between staff feeling under scrutiny in the single rooms **(Section 5.4.1)**, but patients and families being impervious to the indirect care being performed on their behalf in **Section 5.3.3**, is further evidence of how one dimension of a multidimensional healthcare building may influence others directly or indirectly.

Data from the current study revealed that nursing staff in particular, are aware that in the multioccupancy bays, patients observe staff having telephone and face to face conversations, collecting medications, arranging investigations and performing other aspects on indirect patient care **(Section 5.3.3)**. Even then, it is suggested that patients are not fully aware of all the indirect care being performed. This is exacerbated in the single room where patients are unable to see or hear anything that staff are doing unless they are in the rooms. Fore *et al*'s study (2019) is the latest to show that indirect care takes up a considerable amount of nursing time. This supports the earlier discussion in **Section 6.2.1**, relating to the importance of the correct skill mix. Meanwhile Watkins *et al*. (2012) found indirect patient care amounted to only 8% of their work during a shift. Given the dates of these two studies, it could be suggested that further work is required to understand the appropriate skill mix for this environment. While some work has been undertaken to identify the challenges of meeting the demands of direct and indirect patient care to maintain safety (Ross *et al*. 2019), this has not yet been explored in the single-room environment.

The findings from the current study challenged traditional notions of leadership. It was apparent that while the Ward Sister and Deputy Sister were considered to be the senior management team on the ward, it was less evident who the leaders were when those individuals were not present **(Section 5.3.2)**. Gustafsson and Stenberg, (2017) suggest an alternate type of leadership, reflected in the current study by staff

seemingly less willing to be designated as ‘nurse in charge’. They saw themselves as having an implicit leadership role, where they might be in charge of their team or maintained a perception that all the registered nurses worked together during the shift to manage any issues that arose.

To develop their leadership skills, staff call on the skills employed with patients, such as attentive listening and authentic engagement. Some staff in the current study seemed to find it difficult to practice these attributes consistently with patients in the single-room environment as evidenced in **Section 5.4.2.** This section also illustrates that staff felt they were unheard and experienced a lack of engagement from senior leaders in the organisation, suggesting that the potential for developing future leaders may also be compromised. By becoming more self-aware, through an understanding of their own beliefs and values; and by being supported to take on leadership roles, staff can influence care delivery and patient experience in their own wards, revisiting and refreshing the ward culture. Archer *et al.* (2018) provide an example in their study of staff making assumptions about what was wrong with a patient, relying on their own preconceptions, rather than engaging more meaningfully with the patient. They use this example to illustrate how clinical leaders can model leadership behaviours such as effective communication. It raises the question of how those already in leadership roles model behaviours for their more junior colleagues, to make connections and change

behaviours. This is becoming increasingly challenging as nurse leaders are expected to exchange clinical roles for operational ones. This is explored further in **Section 6.4.3.**

Staff in the current study felt that infection control management and patient flow had improved because they no longer had to move patients around to get them into single rooms. It was also a safer environment for immune-suppressed patients. There was however, some evidence of patients being moved from one room to another to accommodate other more vulnerable patients **(Section 5.2.3)**. Increasing the space between patients to reduce hospital-acquired infections was a key driver for the implementation of the single-room design (Dowdeswell *et al.* 2004). More recent evidence from Gokcinar *et al*. (2014), suggests the design is only one measure for improving the incidence of HCAIs, and it is unclear that any one measure will affect the incidence in isolation. Stiller *et al.* (2016) conclude that the evidence does support the impact of the single-room environment on controlling HCAIs, but this report has been criticised by Wilson *et al.* (2017). These authors claim the evidence base remains poor. They also argue that changes to culture and practice, and the multiple causes of infections, make it impossible to be certain about the impact of the single-room environment.

During the OoPs in the current study, there was a lack of awareness from staff around their intermittent handwashing practice. This suggested that sub consciously, staff felt the rooms offered more protection, therefore IPC is less of a priority **(Section 5.2.3)**. This mirrors findings in other studies such as Lacey *et al.* (2020), where staffs' compliance with handwashing only improved when it was the focus of attention. This speaks to the influence of culture and context influencing practice, rather than improvements to the physical environment. NHS staff at all levels of the organisation understand and appreciate the importance of hand hygiene as a means of preventing HCAIs. Participants in the current study were explicitly asked about their hand hygiene practice. Nursing staff were emphatic about the scrupulousness of their practice. However, they were also able to explain why it didn't always happen **(Section 5.2.3)**. This presents a conundrum in how to address the issue with staff. Perhaps this is an area for meaningful quality improvement work. Helping staff to appreciate the reality of their practice, understand the reasons for it, and engaging with them to deliver solutions, may result in a more sustainable improvement in practice. This might address one of the criticisms in a study about NHS culture and context (Dixon-Woods *et al.* 2014), that displays of compliance were more important than genuine improvement to practice.

6.4 NATURE OF INTERACTIONS

6.4.1 Psychological shift

It was evident from the findings that nursing staff felt a loss of control over their work environment. This resulted in a psychological shift in their perception of who owns the space **(Sections 5.3.1** and **5.3.3)**, and therefore their sense of safety. Psychological safety has been defined by Schein as the creation of *"cultural islands …in which it will be possible for members to explore…differences to reach both mutual understanding and new rules for how to manage their own authority relationships."* (2017, p.173). Simonsen (2005) reflects on the connectivity of the self with work production and the space in which that work happens, drawing on the writings of Lefebvre, Heideggar and others. Within healthcare, this has led researchers and organisations to explore how to engage with the environment as a therapeutic space, for patient *and* staff well-being. However, Bell *et al*. (2018) challenge the terminology of therapeutic environment in their literature review. They contend that places in themselves are not therapeutic. Rather it is the relational impact of sociocultural engagement, with patients' and staffs' cultural beliefs around health and well-being influencing how they respond in healthcare environments.

This becomes increasingly relevant when explored in the context of the potential for a psychological shift when the environment changes. Staff in the current study were experiencing cultural and psychological changes

that had not been anticipated in advance of the move. These included the concept of control **(Section 5.2.3)**; being visitors **(Section 5.4.3)**; and some that *had* been anticipated, such as changing the culture to fit the environment (team working; new working practices).

Beyes and Steyaert (2012) argue that new spaces give organisations the opportunity to explore innovative ways of working that can transform practice through the development of a healthful culture. Treating the new space as an empty space, engages practitioners in exploration to understand their world in a new way. This illustrates the context of the physical space with the potential for person-centredness. Researchers such as Hignett and Lu (2010) discuss the role of evidenced-based design over many years, in informing improved facilities to enhance patient outcomes and improve safety. However, Lacanna *et al.* (2019) argue that the complexity of the multi-layered relational aspects of healthcare, seems to persistently limit how this currently happens in reality.

During the current study, it became clear that despite changes to the physical environment, previous practices, particularly related to documentation, remained unchanged **(Section 5.3.2)**. Changing or adapting the culture to work in the new environment can present greater challenges. Schein (2017, p.324), describes the phenomenon of "*learning anxiety*" indicative of a concern about losing one's perceived

position in a group by trying to do things differently. Within the current study, it was evident that staff groups felt comfortable making changes when it was at the behest of the organisation, rather than individuals making changes. For example, the cleaners and kitchen aides within Support Services changed their ways of working to accommodate the new environment **(Section 5.3.2)**. While they were clear that the changes were out of their control, there was evidence of increased interaction with patients, which both parties seemed to enjoy **(Section 5.4.1)**. The lack of time given over to considering what behaviours might need to change to facilitate new ways of working, may lead to a lack of acceptance of the need to make changes related to the more intangible aspects of the job. Staff in the current study experienced challenges in understanding how to share the space with the patients **(Section 5.3.1)**; engaging authentically, given the time constraints **(Section 5.4.2)**; and understanding patients fears about the new environment **(Section 5.4.1)**.

Friere (1972, p.32) suggests that those who feel oppressed are, in reality, in control of their destiny to the extent that they have the ability to make changes that improve their situation *and* that of their oppressors. Evidence of this in the current study comes from all the wards deciding not to use the new communication system with patients, as their experience was that it made the patients uncomfortable **(Section 5.2.2)**. This is supported by DeMarco *et al.* (2008), recognising the impact of professional beliefs and values on nurses' ability to self-advocate during times of challenge.

Psychological safety in this environment would come from working with leaders who accept the need to put in high levels of support, to increase staff resilience, through encouraging candour, without fear of punishment (Edmondson 2019, p.15). According to the findings from Ang *et al*. (2018), developing meaningful staff relationships with high support *and* high challenge, encourages staff to make the changes they feel will equip them to deliver person-centred care. This can be done within the systems and processes of the working environment, while being mindful of the organisation's accountability. While the response rate for this study was low, it's multicultural focus illustrates the value of its findings in different cultural contexts.

In the current study, nursing staff expressed feelings of loneliness and anxiety, similar to that of patients. Working collaboratively felt more challenging because they could no longer see and speak to each other as easily as before **(Section 5.4.1)**. This contradicts the findings of Maguire *et al.* (2013), that nurses were the least stressed group following a move to a new environment. They postulate that this may be due to the introduction of additional support staff, and this relates to the previous discussion on the impact of perceived appropriate staffing levels **(Section 6.2.1)**.

Major change can be painful, especially when it means having to adopt new ways of working, and so a learned helplessness follows. Seligman (1972) describes this as adapting to repeated exposure resulting in a lack of motivation to change behaviour. Staff who are repeatedly exposed to challenging situations without support learn to assume support will always be unavailable. Some staff groups can feel oppressed by such changes, particularly when they feel their professional beliefs and values are being challenged. Previous studies have identified that nurses see themselves as an oppressed group, with a predominantly female workforce, who are used to working in a paternalistic environment (Duffy 1995; Farrell *et al.* 2006).

A perceived lack of engagement on the part of the organisation around the new ward design at this study site **(Section 5.4.2)**, may have resulted in some staffs' subsequent inability to accept the changes to the psychological contract they previously had with patients before the move. Understanding how to manage this anxiety around change should enhance staffs' awareness of their emotional intelligence. Although there has been some debate over the meaning of this term (Nightingale *et al*. 2018), in relation to person-centred practice, it is described as knowing self through one's own beliefs and values, to be able to explore and understand what is important to the patient, making the experience meaningful to both parties (McCance and McCormack 2017, p.56). Acknowledging the fear and uncertainty around change within themselves, makes it easier for staff to support each other and their patients experiencing the same sensations.

6.4.2 Working with beliefs and values

Staffs' anxiety and frustration about the lack of engagement related not only to the design of the new environment, but in the preparation for the move **(Section 5.2.3)**. While changes to the psychological contract in response to major changes often refer to mergers and acquisitions in the corporate world (Bellou 2006), parallels can be drawn with the disruption felt by healthcare staff during the move to a new physical environment. Psychological contracts can be explored either at the organisational level (employer-employee) or more socially between individuals and the organisation (such as patients and healthcare staff). Thompson and Hart (2006) describe how these contracts illustrate individuals understanding of the agreement they have with an organisation and how they should behave within those agreed principles. Applying the idea of such contracts to the construct of strategic leadership within the Person-centred Practice Framework (McCormack and McCance 2017) illustrates the impact of staff engagement in strategic planning. Solman and Wilson (2017, p.79) contend this is even more crucial at an operational level, to ensure *'the development of self and others'* to meet the challenges within healthcare. For staff and patients in this new environment, the organisation has been clear about its purpose of providing new improved facilities for delivering healthcare but appeared to have changed the relational contract between staff, patients and the organisation, resulting in a perceived change of ownership within the space.

Discussions suggested the organisation felt they had prepared for the move sufficiently, in order for staff to feel psychologically safe after the move, and to help them make any changes to their practice. There is evidence from the PRGs, that staff felt differently. Strategic leadership and authentic engagement with staff was felt to be less visible than would have been expected during and following such a significant change in the working environment **(Section 5.4.2)**. This may have influenced staffs' sense of not being involved and reinforced their belief that the organisation was not listening to them. Being authentically present and listening to others' concerns, reflect the notion of a relational leadership style, described by Cardiff *et al* (2018), which models behaviours required for person-centred practice.

Edmondson (2019, p.64) claims psychological safety is about candour, and the lack of it is often thought to be because of fear. Visible leadership, high support, and trust all engender a feeling of psychological safety in staff according to Brown and McCormack (2016). A culture where staff and managers are required to work in a stressful environment compounded by increasing pressures and capacity demands is unlikely to change as a result of changing the physical environment. The lack of visible senior leadership identified by staff in the current study was acknowledged with a certain amount of resignation **(Section 5.4.2)**. In portraying the multiple realities within this new environment, the current study illustrates that preparation for the move meant different things to different groups. Improvements to the physical environment were

undermined by a lack of preparation for the move and candour about the realities of the new environment. Solman and Wilson (2017, p.79) argue person-centred leaders must be able to recognise staff as persons, to be caring and supportive of staff, engaging authentically to empower them during periods of change through visible presence and shared decision-making. Staff in the current study did recognise the input of their own ward leaders and some others **(Section 5.4.2)** but felt disengaged from the wider organisation.

In the current study, there was evidence that while the organisation espoused developing leaders, the lack of visible leadership at this time, discouraged staff from taking on leadership roles themselves **(Section 5.3.2)**. This conflicts with previous findings by Manley *et al.* (2013, p147) that to deliver a person-centred service for patients, staff must be encouraged to participate in developing a shared vision and culture within their working environment. This transformational style of leadership engages staff in leading the change and making it work for themselves and their patients. By adopting this approach throughout the whole change process, and ensuring it is maintained following the change, organisations model person-centredness for their staff. By knowing self, leaders develop the emotional intelligence needed to connect with, and support staff through change processes (Cardiff 2017, p.88). Leaders can find this challenging; experiencing their own pressures, which may force them to prioritise organisational demands over visible presence in clinical areas. This is a common feature of

modern-day health service management practice but will have an impact of maintaining an organisational person-centred ethos. In Beardsmore and McSherry's study (2017), staff highlighted their organisation's inability to deliver on their avowed value related to staff development.

6.4.3 Managing change

Change is complex, and often the focus is on the building itself, and staff training tends to focus on new systems and equipment. This was evident in the current study, with organisational leaders organising training programmes on all the new systems prior to the move to the new building. However, there is also an imperative for organisations to consider preparing and supporting staff for the culture change which will occur. Undertaking a major organisational change, such as a move to a new physical environment is daunting for staff. An understanding of the level of support required over a sustained period, to provide a sense of collaboration, caring and shared decision-making is warranted. Beckett *et al*. (2013) describe how, in their study, staff were given time to engage in exploring their beliefs and values as a team. Time was also given over to problem solving activities associated with moving. On a larger scale, Harris and Cohn (2014) report on the work associated with redefining the professional beliefs and values of the nursing team in a new hospital. Engaging staff in decision-making around the development of beliefs and values, and promoting collaboration at all stages of their development, promoted the organisation's values of person-centredness. What remains

absent from the current literature is evidence to support pre-conceived assumptions that staff will be happy, and care will be of a higher standard, as a result of an improved physical environment. The evidence from the current study would suggest that while everyone agrees the physical environment has improved, concerns about staff and patient experience remain.

Having time to consider new environments and ways of working; exploring if they were working for the benefit of patients and staff, and if not, how could they be changed, is challenging. Beckett *et al*.'s study (2013) provides evidence that transformational leadership in this context can prevent staffs' sense of oppression in the face of major change, by engaging them in the plans for a new facility. By motivating staff through individual development to understand and embrace the organisation's' goals, Giddens (2018) suggests they become more engaged in the joint enterprise of achieving those goals and affecting change by looking at problems in a new or different way. Staff in the current study were clear that this new environment was not a joint enterprise, rather something that was being imposed on them. While they appreciated the benefits of the new surroundings for patients, they felt disengaged and disempowered in both the design and implementation phases of the work. This manifest itself in the tensions described in **Section 5.2.3**, with staff having to manage heightened expectations in a new environment, they themselves were unfamiliar with.

Developing a shared vision at the design stage and the use of facilitated team building and practice development principles as described in the work by Harris and Cohn (2014), gives staff time to recognise themselves and others as real persons who can affect change. Healthful cultures are predicated on staffs' ability to revisit their professional beliefs and values in the light of change within the organisation, either at a systems or a processes level. This supports teams to work productively together in a supportive way, with Van Bogaert *et al.* (2012) claiming this promotes well-being and engagement, while Edmondson (2019, p.42) equates supportive co-working to psychological safety and job satisfaction. A healthful relationship between staff and leaders improves the culture and context in which learning happens (Hardiman and Dewing 2019), while evidence from Purdy *et al.* (2010) suggests an impact on patient outcomes. In the current study, staffs' sense of being forgotten about by the organisation reflected patients' experiences of being forgotten about by the staff because they could not see them **(Section 5.3.3)**.

Where organisational support in managing that change appears to be missing, staff's sense of psychological safety can be undermined. This may occur when changes, in the short-term impact on organisational objectives, which Lee and Taylor (2014) define as *principal contracts* (organisation) and *agent contracts* (staff). One result may be to resort to applying previous ways of working to the new environment to conjure a sense of familiarity and confidence, as evidenced in the current study,

where the staff bases continued to be the focus of the ward **(Section 5.3.2)**, despite staff having more privacy and space in the patient rooms. While this is an understandable reaction to uncertainty, it may result in added stress for staff as they try to maintain a familiar culture in an unfamiliar setting. Staff argued that the constant presence of visitors reduced the privacy for writing documentation, but observations indicated this was a cultural practice among nursing staff, which remained unchanged following the move.

Living the values of person-centredness included in the mission/vision statements of most NHS organisations, means ensuring staff are supported through major changes such as new physical care environments. Acknowledging the impact of interrelated aspects of health care organisations, highlights how actions taken in one part of the organisation can influence outcomes in another (Coghlan 2019, p.144), as highlighted in the current study. The demand for beds from Accident and Emergency resulted in the presence of undesignated beds in the new building. The conflict ward staff experienced with patients may have resulted from a failure to manage patients' expectations prior to admission, as discussed previously in **Section 6.3.1**. Front-line staff do not always have a global view of the organisation, so decisions made for the benefit of the organisation can leave staff feeling demoralised and oppressed when they are expected to manage situations, they feel they had no input in creating. The 100% single-room environment is a relatively new concept

for the NHS and patients and staff in each new building can use their experiences to help others learn as a means for change (Senge et al. 2007, p 148).

Staff in this study expressed real interest in the outcome of this study, recognising that not only would their voices be heard about the reality of their experience, but they could contribute to the learning of colleagues within the organisation, across the wider NHS and internationally. Recent announcements of additional funding to repair and replace NHS building infrastructure (Triggle 2019), will lead to many staff moving (eventually) to new built environments. This means leaders and staff need to be open to listening and hearing what the care environment is telling them. Careful consideration needs to be given to the amount of time needed to prepare for such a move. Challenging care environments can impact preparation for new built environments; staff have to be willing to embrace change; and the organisation must be prepared to accept less initial impact on patient outcomes than anticipated. This was evident in the studies by Knight and Singh (2016) and Anäker *et al*. (2019), who experienced initial negative patient outcomes following the move to a single-room environment.

6.5 CHAPTER SUMMARY

This study was designed to explore the impact of the 100% single-room environment of the experience of person-centred practice. The findings demonstrate the connectivity between the physical environment, patient and staff experience, and the impact of the macro context. For patients in the current study, the contract change was a positive one. While problems with service delivery remain, patients are now cared for in better surroundings, with more privacy and dignity, and with greater control over their surroundings. This aligns with the organisational vision of treating patients with respect. A particular focus for discussion has been the psychological impact of the new environment on nursing staff. The change within the care environment was unsettling for staff, creating uncertainty in terms of the physical environment; new care processes; and the relational shift with patients, around control of the environment. Staff expressed concern about the lack of engagement in the design and to feeling undervalued after moving. As a result, they did not feel their voices had been heard. They were unsure of the new surroundings and expressed a sense of disquiet around the changes to their ways of working, which they felt they had not had time to prepare for. This equated to a change in the psychological contract for staff, as their professional beliefs and values were challenged in the new environment. As a result, there appears to be a discordance between *patient*-centredness and *person*- centredness, and the complexity of engagement, emotional support and the development of therapeutic relationships, central to person-centred practice.

CHAPTER 7: CONCLUSION

7.1 INTRODUCTION

The purpose of the study reported here was to explore the impact of the 100% single- room environment on the experience and delivery of person-centred practice. This chapter draws together the work detailed in the previous chapters, to identify how this research will contribute to the body of knowledge on this subject. The strengths and limitations of the study will be identified. The implications for practice will be drawn out based on the relevance of the findings. The implications for further research and the potential impact on education will also be explored. Reflection and reflexivity are present as threads throughout this study. A personal reflection of the PhD journey forms part of this chapter, with a focus on personal learning and development.

7.2 CONTRIBUTION TO KNOWLEDGE

7.2.1 Purpose

This study focused on a single research question: **How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?**

There were three objectives:

1. To explore, from the perspectives of patients/families, the experiences of care within a single-room, acute hospital environment.

2. To explore, from the perspectives of staff, the experiences of working within a single-room, acute hospital environment.

3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

7.2.2 Contribution

The findings from the study contribute the following to the knowledge base on the impact of the single-room environment:

Changing the physical environment does have an impact on person- centred practice by:

- **Providing a sharper focus of what constitutes a healthful culture (Figure 8)**

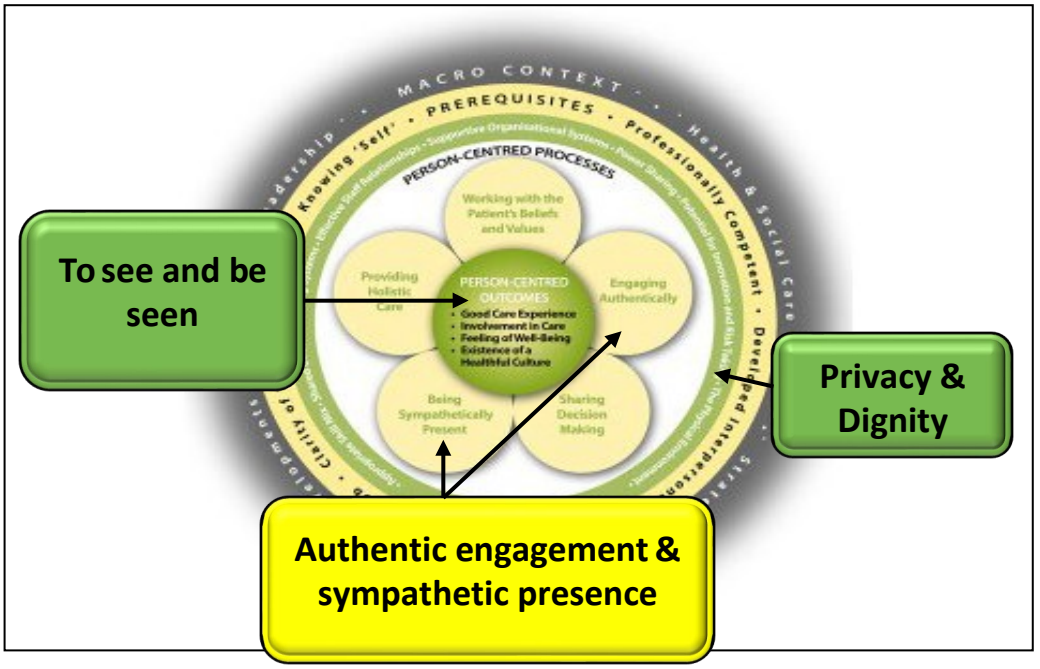

Figure 8 Contribution 1

Patients feel a heightened sense of privacy and preservation of dignity in the new surroundings. Nevertheless, patients and staff wish to be seen. Delivery and experience of care in a 100% single-room environment can reinforce the sense of anxiety that hospitals environments evoke. Awareness of physical presence, through visibility and socialisation, increases the notion of receiving and delivering high quality care. Authentic engagement and sympathetic presence become more important as staff try to deliver a good care experience for patients. These strategies make patients feel less isolated and more involved in decision-making about their care.

- **Working with patients' beliefs and values (Figure 9)**

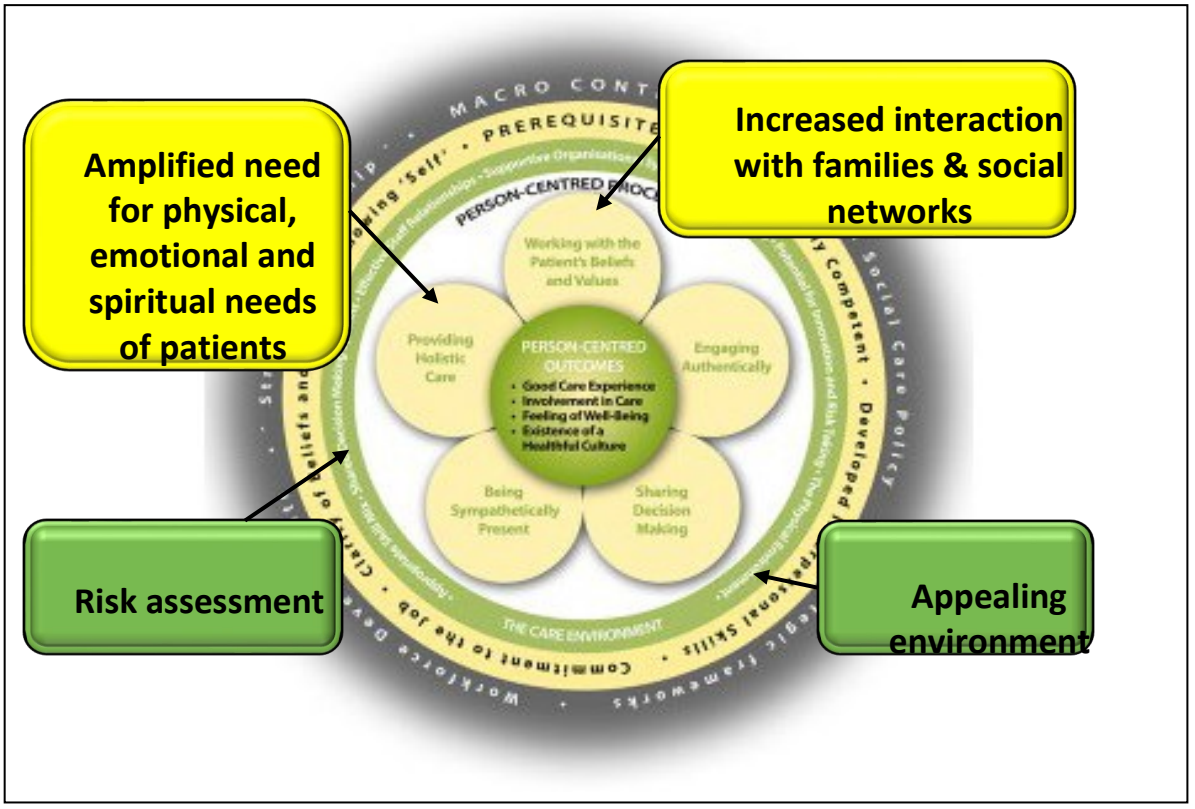

Figure 9 Contribution 2

The single-room design has created a much more appealing environment for inpatients. There is now an expectation of a hotel culture to mirror the surroundings. This offers opportunities for innovative practices around care delivery, while retaining the clinical elements which ensure patient safety. The single-room environment encourages greater interaction with families and social networks. It also needs to be tempered by an awareness of the increased acuity of many inpatients.

The increasing acuity, comorbidities, and age of many inpatients means being socially aware in these surroundings. Providing holistic care means recognising the physical, emotional and spiritual needs of patients, which may be amplified in the new environment.

- **Uncovering a sense of unease about who "owns" the space creating an additional barrier to delivering person-centred care (Figure 10)**

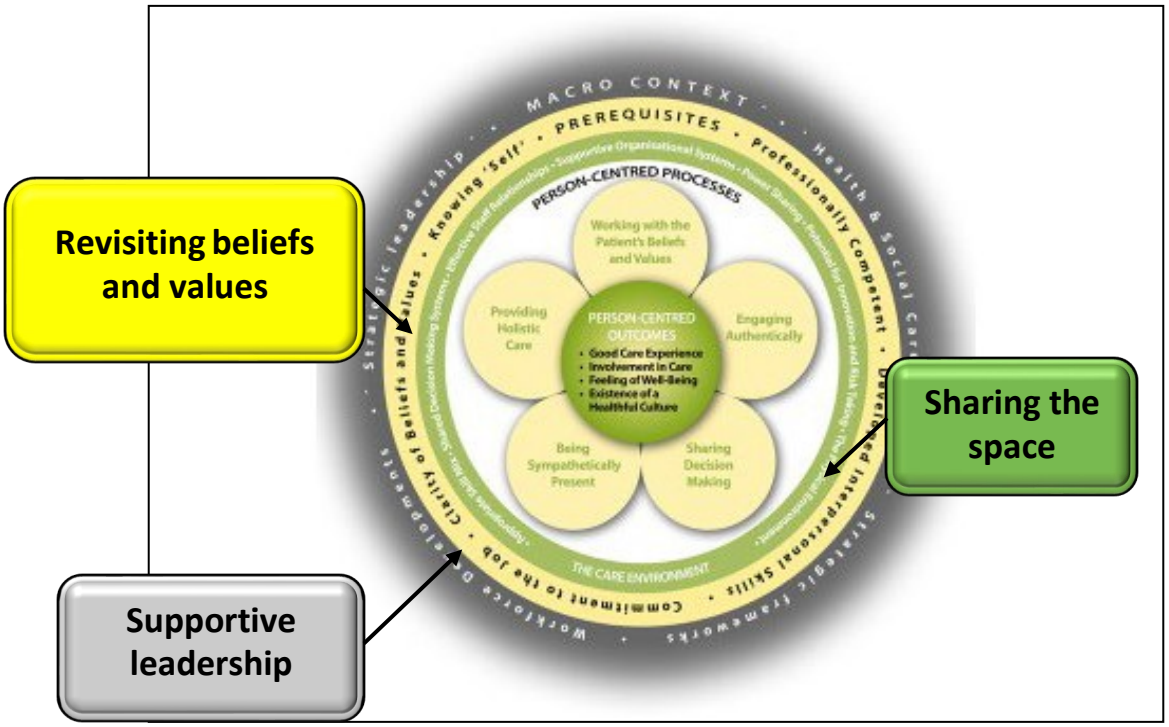

Figure 10 Contribution 3

The psychological shift apparent in the current study, reflects the discomfort felt by staff about being in the rooms. These are now seen as belonging to the patients. Giving patients control of the environment can change the dynamic between staff and patients. Staff must reflect on their own beliefs and values and be supported to understand how to share this new space in a person-centred way.

Involvement in care and shared decision-making can be enhanced by the privacy and space afforded in the rooms. A sense of unease about who 'owns' the space can reduce the feeling of well-being for both staff and patients. As a result, task-focused care re-emerges, impacting communication by spending less time in the rooms.

7.3 IMPLICATIONS FOR PRACTICE

The findings of this study have a number of important implications for future practice.

7.3.1 Engagement and support

This study reveals the challenges of creating a new physical space in an acute hospital setting. There is a tacit agreement that staff engagement at all stages of the process results in an improved sense of morale and ownership of the space. The reality however, is that engagement is usually predicated on organisational objectives. This illustrates a fragility in the system, lacking support for shared decision-making and power sharing. It

is clear that there are significant time pressures on staff throughout healthcare organisations. It is also clear that some of the issues that arise following a move could be resolved with greater engagement throughout the process. Organisations considering rebuilding programmes that include 100% single-room environments, need to reflect on this. Nursing staff in particular need to be given a greater voice in the design of ward environments. Some of the meetings which take place at higher levels of the organisation, could be reconfigured to take place in the wards. This would allow staff who will be directly affected to attend, even briefly. Time is usually dedicated to training staff on new equipment and systems. Little or no time is allocated to helping staff to understand how they might need to work differently, both physically and psychologically.

7.3.2 Visible leadership

Visible leadership needs to be enhanced on several fronts to empower staff working in this new environment. At a macro level, strategic leaders should be engaged in the public awareness solutions to manage expectations. There needs to be an acknowledgement that new facilities may not address the impact of current demand and workforce constraints on patient experience. At an organisational level, senior managers need to be more visible, particularly following the opening of a new facility. This is when staff are likely to feel most vulnerable and patient's expectations will be highest. A visible presence can offer reassurance and can divert some of the snagging issues and patient concerns from staff. This allows

them to focus on care delivery. Organisations must acknowledge the burden on senior managers. During a period of change this visible support requires prioritisation over other concerns. Organisations should also endeavor to limit activities which take Ward Sisters away from the new ward. Their priority should be working with staff to review the culture in light of the new environment.

7.4 IMPLICATIONS FOR POLICY

7.4.1 Influencing policy

While current guidance advocates 50-100% single-room environments, current evidence would suggest building programmes are aiming for 100% single-room environments (NHS Greater Glasgow and Clyde 2015; The Royal Liverpool and Broadgreen University Hospitals NHS Trust, 2019). The findings from this study support previous findings, that this may not be the most advantageous design for inpatient healthcare. Policy makers should review the recent evidence, in light of the needs of the older population, andthose requiring closer surveillance during admission.

There is also evidence of the isolation and loneliness experienced by patients and staff. Policy makers have a duty to ensure that building design features and new systems and processes, address these issues, while considering capacity and workforce demands.

7.4.2 Managing public expectations

The current study evidenced a very strong sense among staff that public expectations about the new environment had been heightened. While the physical environment had changed, the care environment had not. The capacity demands in the system and the continuing workforce challenges meant that patients' expectations of a hotel-type service could not be met. Future building projects should be aware of this concern. A public information service around new builds is required. Virtual reality tours are commonly used to allow the public to see what new buildings will look like. Equal consideration needs to be given to managing expectations about the service. This might take the form of a public engagement forum to explain what will and will not happen after the move. Another option might be to facilitate patient groups to be shown around the new building before it opens. This would allow assumptions to be addressed and expectations managed.

7.5 IMPLICATIONS FOR RESEARCH

The findings of this study have important implications for understanding the impact of the environment on person-centred practice. There are several elements which would benefit from further study.

7.5.1 Engagement

- More research is needed to determine how organisations can be more

person-centred in their engagement with staff and the public around building design. The values of co-production and public involvement in research support meaningful engagement of staff at all levels of the organisation, and ensures the public is given a voice. Creating advisory groups made up of staff, patients, designers, architects and managers from within organisations, would provide oversight of all decisions around the design.

- There is also a need for further exploration of how therapeutic relationships are developed in this environment, including issues of socialisation and existential loneliness.

7.5.2 Culture

- Staff need be given facilitated time to explore their beliefs and values around person-centred care in the *new* environment, and the development of healthful cultures. Further evidence is needed to understand ward cultures before and after moving to a new environment
- Given that an open visiting policy appears to be aligned to the new environment, working with families in an adult inpatient environment is worthy of further investigation.

7.5.3 Organising nursing work

- Nurses are the staff group who spend most time in the ward environment. Research should explore what sharing the space

means for this group.

- A focus on the need for different ways or working may contribute to reduction in the walking burden, including the use of the call system for patients.
- There is also a need to understand the ‘on stage’ and ‘off stage’ priorities and how these are delivered. In particular, this reflects further work needed around documentation.

7.5.4 Workforce

- There is evidence of the need to assess the long-term impact of the 100% single-room environment on workforce planning.
- Engagement with senior leaders is needed to understand the challenges and solutions to providing visible leadership at a time of significant change.
- Research is also needed to understand how healthcare organisations can evidence a more mindful co-working approach with staff.

7.5.5 Patient safety

- Investigation of the previous patient safety claims is warranted, given the increasing number of new single-room environments. The evidence to support or disprove claims, particularly related to IPC, falls, and surveillance could be re-examined.

- Work is also required to explore the practicalities of surveillance and visibility of *all* inpatients in the new environment.

7.5.6 Documentation

- Exploration of the accessibility of the Electronic Care Record in the single- room environment.
- Practice Development work is needed to explore staff engagement with patients around shared decision-making, through more proactive completion of documentation. Within the new environment, this should focus on completing documentation in the patient's room.

7.6 IMPLICATIONS FOR EDUCATION

- Exploring the knowledge and attributes of person-centred care for NAs in the single-room environment may inform current training programmes.

- Post graduate education should include a greater focus on leadership skills within the ward environment.

7.7 STRENGTHS AND LIMITATIONS OF THE STUDY

7.7.1 Strengths

- While there are many ways of understanding participants' experiences in the single-room environment, viewing it through the lens of person centredness gives the current study a particular focus with which to understand the impact of the environment on practice.
- Using the WCCAT (McCormack et al. 2009), illustrated how the principle of direct observation of a group could be underpinned by a structure that linked the findings to theory and facilitated participant engagement. The tool provided a systematic approach for engaging staff and providing feedback during the study.
- The potential impact of the behaviours within this environment on the experience and delivery of care have been presented nationally and internationally and appeared to resonate with audiences. This speaks to the transferability of the findings.
- By using an ethnographic approach, multiple approaches to exploring issues was possible. Using direct observations of behaviour, supporting patients to tell the stories of their experience, and reflecting with staff on their experiences, supported a flexible approach to data collection. Melding the data during analysis meant repeatedly going back and forward through all the data. This provided rich description and explanations of the participants' experience.
- Fieldwork relates to a continuous presence in the field, establishing

a direct relationship with the actors. Trust can be established while not getting too close. Learning the code of the culture enables understanding of the observed actions.

- Support at several organisational levels ensured engagement throughout the current study. Several weeks of preparation with senior managers, Ward Sisters, and staff, took place prior to data collection.
- The problematisation and consciousness raising elements of the WCCAT allowed for discussion and reflection on what had been observed.
- Reflexivity engaged the researcher in identifying the impact of attitudes and perceptions on the findings. Reflective and reflexive journals were kept by the researcher throughout the study as evidence of these processes.
- Within this thesis, personal beliefs and values, previous experience and prior assumptions have been identified.

7.7.2 Limitations

- It could be argued that by selecting non-participant observation, events were missed. These could have shone a different light on some of the eventual findings. As the researcher did not enter rooms when intimate care was being carried out, and doors and blinds were closed, it is possible events were missed. However, for example, enough evidence of the lack of handwashing practice was observed, to warrant raising it as an issue in the PRGs.

- The data collection period was relatively short – 3 months. O'Reilly (2012, p. 16) supports Malinowski's earlier contention that observation takes considerable time. However, this study demonstrates how many valuable insights can be obtained in a shorter period of time. Collecting a significant amount of observational data in that short time, to illustrate behaviours across all the shift patterns, authenticates the findings.
- Results are limited to the context of the research. This study explored the specific area of person-centred practice in a 100% single-room environment. The findings are not transferrable to other single-room settings that are less than 100%. It *could* be argued however, that the findings relating to person-centred practice are transferable to other inpatient environments.

7.8 PERSONAL REFLECTION

7.8.1 The realities of research

During this study, it became clear that there was a tension between the principles of performing research in an acute care environment, and the reality. The most significant challenge arising during the research was the lack of a multidisciplinary focus in the PRGs. Staff were alerted to the group sessions and how valuable they would be in terms of getting staffs' voices heard. The Ward Sisters were consulted about the best time to release nursing staff. AHP and support services staff were spoken to informally about when they were more likely to attend. Their managers were also

consulted and gave a reassurance that staff would be facilitated to attend. The feedback was that early afternoon suited everyone best. As a result, the groups took place between 2-4 pm. Posters were displayed in the participating wards one week in advance to remind staff of the session. In the event only nursing staff participated, and even then, they had to be reminded the group was happening. The data collected from these groups was very valuable. Participants were able to reflect on the early themes coming out of the observational data. This provided clarity on some issues, provoking debate on others, and raising consciousness for all. Understanding this response reflexively, the anxiety of ensuring staff had an opportunity to have their voices heard was important to me. Staffs' priority was caring for patients and this might mean working on several wards. As a result, their time was constantly filled, leaving them less inclined to engage in research processes.

The concept of the power differential between researcher and staff was also revisited throughout the study. Staffs' perceptions of my previous role and organisational knowledge had potential to influence the "backstage" information being collected. Capturing any "managerial" or "nursing" conclusions being drawn from personal experience facilitated understanding of what was being observed or heard during the data collection, without interpretation at that point.

7.8.2 Obtaining consent

Obtaining consent was challenging on two fronts – one expected, one not. A great deal of thought had been given to obtaining consent from patients, particularly in light of the aim to be as inclusive as possible. As a result, several PIS and consent forms were produced for patients, family members and staff. Despite leaving the staff PIS on each participating ward, two weeks before data collection commenced, very few of them read it. Each member of staff had to be spoken to at the beginning of each period of observation. Written consent was obtained at that time from those willing to participate. While this ensured an improved process for obtaining informed consent, it was a frustrating development. A significant amount of effort had been made to ensure these documents met ethical requirements. Another PIS was left with the patients when they expressed interest in participating. Once again, very few of them read the information, and a verbal explanation had to be provided prior to obtaining consent. Talking to the patients about the study did offer the opportunity to evaluate their ability to engage in conversation. This was relevant for interview selection.

7.8.3 Observing

The observations were challenging initially as the wealth of visual and auditory information felt overwhelming. As the ward routines became more familiar and observation routines were developed, it became easier. There was an opportunity to really look at what was happening and to use all the

senses, an approach prompted by the WCCAT (McCormack *et al*. 2009). Having not been on a ward for over a year, I was conscious for the first time of the smell of disinfectant, and toast! Touching some of the new screens helped identify patient rooms where interviews would take place. Hearing the call bells for the first time, emphasised the changed environment, as did seeing the reaction of patients and visitors as they came into the wards for the first time. Tasting a cup of coffee while on night duty reminded me of my own years as a night sister. All these sensations spoke to me of the embodied experience of being on these unfamiliar new wards.

A decision was made not to shadow staff in the single rooms. This was in keeping with non-participant observation. The decision reflected an aspiration to understand the impact of the single-room environment at a global level. Shadowing participants in the rooms was felt to focus more on the detail of care delivery, which was not the purpose of the study. In the event, this approach provided an overview of what happened on the wards. It was also possible to see how participants interacted with the environment and each other. It was possible to hear conversations as the room doors were not always closed. When the blinds were open staff actions could be observed. It was clear though that more data might have been gathered if there had been a researcher presence in the rooms at times. On the other hand, this presence might have altered the behaviour of the participants. It would then have been less likely that the reality would have been observed.

The ward layout meant it was not always possible to see what was going on. This meant moving around the ward throughout the observation period but risked missing a relevant interaction by being elsewhere. This reflects the challenge the participants also talked about relating to visibility. The main corridor on each ward was long, so it was not possible to observe everything that happened from one vantage point. The shorter corridor at the bottom could not be seen at all unless a vantage point was chosen along that corridor. This meant being alert to what was happening, so that I could move if there was greater activity in another part of the ward. Sometimes though, it was better to just sit and wait. By being still, participants were less aware of my presence and this is when some of the interesting conversations took place.

7.8.4 Emerging themes

The authors of the thematic analysis framework used in this study have recently debated the term “emerging themes.” This phrase, commonly used in qualitative research approaches, may be misplaced (Braun and Clarke 2019). They argue that the themes are created by the data and have to be sought by the researcher in a proactive process. This resonates with the experience of analyzing the data for this study. The themes which came out of the initial analysis were not those described in the Findings chapter.

The depth of analysis needed to ensure that the picture being painted by the themes is reflective of the participants’ experiences is significant. Given

that this study was about the experience of the single-room environment, it was important that the themes reflected that specificity. Where the data reflected experiences which would apply regardless of the setting, these had to be set aside. This enhanced the understanding of the impact of this new environment. Consequently, the data had to be returned to constantly, to reflect on what was being described. At the same time, a reflexive understanding was needed on any personal impact on the analysis, preventing distortion of "*the world of the other.*" (Vidich and Lyman 2000, p.58)

7.8.5 My personal journey

By keeping journals throughout my PhD, I am able to look back on my experience and appreciate how far I have come in the past three years. By being both reflective and reflexive, I became more self-aware; reviewing my worldview empowered me to understand the experiences of others. I realised what a messy experience research is, with nothing going quite the way it is supposed to. I look back on the frustrations I experienced, which at the time, seemed almost unsurmountable. They were not of course, and this was due in no small part to a very supportive supervision team. It was made clear to me that this was a collaborative effort, and their experience proved invaluable throughout.

As I read my reflective notes again, I can feel my frustration at how long it took to get some things done. A Myers-Briggs (2000) evaluation I undertook ten years ago shows I am an ISJF (**I**ntroverted **S**ensing with **E**xtraverted **F**eeling). The characteristics include the following:

Practical and realistic; concrete and specific; cooperative and thoughtful of others; kind and sensitive.

This certainly resonated with me during this journey. My practical nature railed at any delays. I also had to put my realist leanings to one side, to engage authentically with the ethnographic principles adopted for this study. I tried to be cooperative with my supervision team and with the organisation where the study took place. I was very conscious of needing to be sensitive to all the participants, when collecting the data and in writing this thesis. As a nurse, I understand that what people think they do, and the reality are not always the same. This needs to be acknowledged and challenged in a respectful, supportive way. Challenging findings should be conveyed in a manner which helps others to develop. By hearing the voices of patients *and* staff, there can be an informed debate about the impact of the environment on care. My wish is that this work will inform the debate about the single-room environment.

7.9 FINAL REMARKS

This study is one of the first, or as far as is known, is the first to adopt an ethnographic approach to explore the impact of the single-room environment on Person-centred practice. While some of the findings

resonate with those of previous studies, the specific findings aligned to person-centredness provide a new perspective. It is clear from this study that further work is required to engage practitioners on the design of these new buildings. Time, always in short supply in the healthcare environment, is needed for staff to understand different ways of working to meet the new demands.

Clarifying the specific leadership role of senior managers in an organisation during a period of change is crucial. Providing reassurance and working collaboratively with staff promotes person-centred values of power sharing, effective staff relationships and shared decision-making. Empowering staff in this way models behaviours which staff can adopt with each other and with patients. Developing mutual trust and a shared understanding of challenges and opportunities, acknowledges staff as persons, fostering a sense of '*being rather than doing or telling.*' (Christie *et al.* 2012). This may reduce the impact of the environment, but emphasises the importance of culture.

As a paediatric nurse, it feels appropriate to end this piece of work with lines from a Disney© song, which encapsulates my experience of this study:

"You think the only people who are people
Are the people who look and think like you
But if you walk the footsteps of a stranger
You'll learn things you never knew you never knew."

(Colours of the Wind from Pocahontas)

APPENDICES

Appendix 1 Literature Review publication

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REVIEW

WILEY Journal of Clinical Nursing

The experience of person-centred practice in a 100% single-room environment in acute care settings—A narrative literature review

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Abstract

Aims and objectives: To review published research into the staff and adult patient experience of person-centred practice in a 100% single-room environment in acute care.

Background: There has been a significant move towards the 100% single-room environment within healthcare systems. Furthermore, there has been a global move for developing person-centred practice in a range of healthcare settings. Some studies have linked the role of the physical environment to patient outcomes and improved patient satisfaction; however, these are limited. Overall, there is little evidence in the international literature of the experience of care in single rooms in adult, acute care settings.

Design: A narrative description was developed using the major constructs of the person-centred practice framework (PcPF). The PRISMA checklist provided additional rigour.

Method: Problems, Exposure, Outcomes (PEO) refined the search terms to: person-centred, adult acute care, single room, staff experience and patient experience. CINAHL, Medline Ovid, Psycinfo, Embase, Web of Science and Scopus were searched for full-text English language papers of empirical studies published between 2012–2017. PRISMA illustrated final paper determination, and the CASP/EPHPP frameworks were used for a critical appraisal of the 12 selected papers.

Results: The literature recognises the increasing complexity of health care in the acute care environment globally. The international literature available identifies staffs' desire to practise person-centredness, but much of the evidence is focused on care delivery. The impact of the single-room environment on person-centred practice links mainly to the constructs of the care environment and person-centred processes within the PcPF.

Conclusion: This review focuses on empirical studies relating to person-centred practice in the single-room environment published in the last 5 years. While there is a significant body of work relating to person-centredness and the delivery of person-centred practice, and the impact of the environment on care delivery, there appears to limited evidence linking person-centred practice, staff and patient experience and the single-room environment.

Appendix 2 Workplace Culture Critical Analysis Tool Observation Process (adapted)

(McCormack, B., Henderson, E., Wilson, W. and Wright, J. 2009)

Strategy	Description	Methodology
Pre-observation	Engage with senior staff to identify the participating wards Engage with multidisciplinary groups of staff to discuss how the component parts of the study will be undertaken Provide written and verbal information Distribute and collect consent forms Discuss beliefs and values within each ward culture Discuss patient recruitment Discuss any concerns	Data collection
Observation	Informed by duty rosters Observation sessions of 2 hours Researcher will move around the ward to collect data WCCAT will act as a prompt for observation Fieldnotes will be taken during observation period for reflection afterwards	Data collection
Consciousness raising & problematisation	Meet with staff who have been observed as soon as practicable (no more than 1 hour post observation) Review issues for clarification Provide initial feedback	Reflection & data collection
Reflection & critique	Use fieldnotes and staff feedback to identify issues for discussion & exploration during Participatory Reflective Groups	Reflection
Participatory group reflection	Facilitated group work for staff participating in Observations of Practice Critical dialogue around findings from Observations of Practice exercise Additional data collection of staff reflections	Reflection & data collection

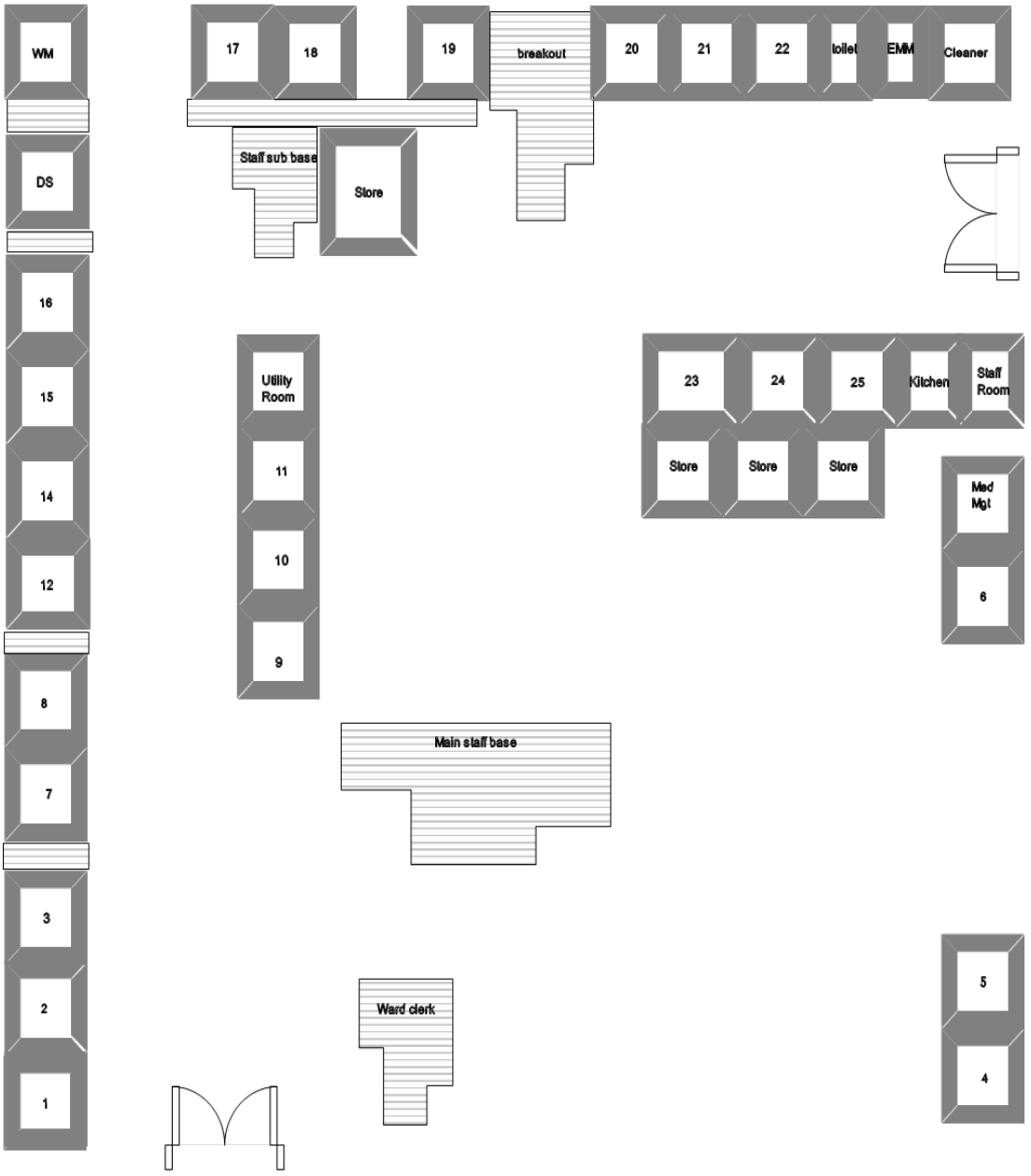
Appendix 3 Workplace Culture Critical Analysis Tool (McCormack, B., Henderson, E., Wilson, W. and Wright, J. 2009)

Observer prompts	Observation notes	Questions arising
Observation Area 1: Physical Environment What impression do you get from looking at the setting? *(You should consider various areas within the ward/department, for example patient rooms, nurses' station etc.)* • What do you see, hear and smell *(consider noise levels, lighting, dominating smells and activities that appear to shape the culture)* • Are call bells answered promptly? • Who does the environment privilege? Consider how patient friendly it is, or how staff friendly it is? Are there forbidden patient areas? Is there adequate seating for visitors etc.?) • How is space used / furniture arranged / layout? (For example are chairs placed convenient and ready for use when staff are communicating with patients; also consider equipment location. Is the space cluttered? Are lockers and bedside tables clean and tidy? Is there space for visitors to sit and be with the patient?) • Who takes responsibility for the environment?		

Appendix 4 Trust Population Demographics

Age Range	Population 2018	Predicted Population 2025
<15 years	73,098	Unchanged
16-39 years	102,989	Small increase
40 -64 years	118, 352	Small increase
>65 years	66,890	80,654 (29% increase)

Appendix 5 Ward Layout



Appendix 6 Staff Information Sheet

STAFF INFORMATION SHEET

How does a 100% single-room environment influence the experience of person- centred practice in an acute-care setting?

Researcher: **Rosie Kelly, PhD Student, Ulster University,**

I am a nurse who is currently undertaking a research study as part of my PhD, with the Ulster University. I am inviting you to take part in a research study exploring how 100% single rooms influences the experience of person-centred practice in an acute care setting. Before you decide I would like you to understand why the research is being undertaken and what it would involve for you. Please take the time to read this information carefully and feel free to contact either myself (Rosie Kelly) or the chief investigator (Dr Donna Brown) about the study if this would help you to decide.

Your ward will be participating in this research study.

What is the study about?

There is no evidence in the current literature that links patients' and staffs' experience of Person-centred Practice to the single-room environment in an acute care setting. This study aims to address this gap in the knowledge base by exploring the influence of a 100% single-room acute-care environment on the experience of person-centred practice.

There are three objectives:

1. To explore, from the perspective of patients/families, the experiences of care within a single-room, acute hospital environment.
2. To explore, from the perspective of staff, the experiences of working within a single- room, acute hospital environment.
3. To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

Why has my team been selected?

Your area is one of the wards in the new Inpatient Ward Block. Three wards have been chosen to participate following consultation with senior managers and the Ward Sisters.

What will the study involve?

This is an ethnographic study, which uses different approaches to obtain information on the experience of staff and patients. These include patient stories, periods of observation in practice settings, and staff meetings to review the observations of practice. The following table provides a summary of the activities that staff and patients will be involved in as part of the study.

Observations of Practice	This will involve observing activities that occur in your area in 2 hour slots over a variety of days to cover 24 hours in total and feeding back observations to the ward staff. The researcher will have undertaken relevant training to ensure that the ethical and process issues are fully understood and adhered to throughout.
Consciousness Raising	A meeting will be held as soon as is practicable (but preferably within 1 hour of the completion of the period of observation) between the researcher and staff members to review issues for clarification. This will also give the researcher the opportunity to provide some general feedback on what was seen.
Participatory Analysis meetings	Your team will be invited to attend a ward meeting to reflect on the researcher's findings and participate in a critical dialogue about the findings. The questions will focus on, but not be limited to, the construct of the Care Environment, within the person-centred practice framework. You will then be asked to undertake a primary thematic analysis based on the findings. The researcher will act as facilitator to ensure that the ethical and process issues are fully understood and adhered to throughout. These meetings will be tape recorded to ensure the discussions are captured accurately.
Patient stories	This will involve interviewing patients to hear about their experience of the care they have received. The researcher will collect the patient stories having undertaken the relevant training to ensure that the ethical and process issues are fully understood and adhered to throughout.

Do I have to take part?

Taking part in the activities associated with this study is entirely voluntary. It is up to you to decide. If you choose not to take part this will be respected and will not affect your employment or professional standing in any way.

What will happen to me if I take part?

If you decide to take part you will be invited to participate in the following activities, which are described above:

- Observations of practice
- Consciousness Raising

- Participatory Analysis meetings

What will happen to the information that is gathered?

If you consent to take part in this project, the information gathered with be treated with the strictest confidence. No names will be disclosed and no personal information will be traced back to you. Additionally, all identifiers will be removed during data analysis and prior to the publication of any reports or papers. However, should a concern in relation to the clinical environment or unsafe practice be observed, as required by the NMC code of practice (2015), this will be disclosed to your line manager and the chief investigator.

All data will be held securely according to university guidelines as required under

data protection legislation. Transcripts will be stored on computer in password protected folders and will be destroyed after ten years.

What if something goes wrong?

It is very unlikely that something will go wrong. However, if you experience any difficulties you will be provided with details of available support networks through the Trust.

How will the results of the study be shared?

Following the study, a short report of the findings will be presented to your ward to be shared with all staff and the final report will be presented to the Director of Nursing. The overall results from the research will be shared with professionals locally. Only anonymous results will be presented. A plain English summary will be made available in all wards in the new Block for all patients to read. There will also be presentations and publications to other professionals in Northern Ireland, nationally and internationally. The findings from the research will lead to further research or directly to improvements /changes in practice.

Other information

Please remember that participation in this project is voluntary and if you decide not to take part or decide to withdraw at any time this will not otherwise affect your employment.

If you decide to withdraw from the study it will not be possible to remove the data collected previously as there will be no identifiable indicators

Who has reviewed this study?

This project has been reviewed by the Governance Filter Committee of the Institute for Nursing and Health research, University of Ulster. It has also been approved through the Office for Research Ethics Committees Northern Ireland and the South Eastern Health and Social Care Trust Governance office. Should you require further details you can contact the University Chief Investigator.

Contact information

If you have any questions about the conduct of this study, please do not hesitate to discuss them with:

Dr Donna Brown, Chief Investigator
Ulster University,
Shore Road, Belfast BT37 0QB

Tel: 02890368512 Email: d.brown1@ulster.ac.uk

Rosie Kelly, PhD Student
Ulster University,
Shore Road, Belfast BT37 0QB

Tel: 02890368255 Email: Kelly-R55@ulster.ac.uk

Christine Boomer, Clinical Collaborator
Home 3, Ulster Hospital,
Dundonald, BT16 1RH
Tel 02890 484511 Ext 2757 Work mobile – 07730195187

Email: christine.boomer@setrust.hscni.net

Professor Tanya McCance Chief Investigator
Ulster University,
Shore Road, Belfast BT37 0QB
Tel: 02890366450 Email: tv.mccance@ulster.ac.uk

Should you have a complaint about this research please contact Nick Curry

Head of Research Governance

Room 26A17

Ulster University Shore Road, Belfast BT37 0QB

Tel: 02890366629 **Email: n.curry@ulster.ac.uk**

This Information Sheet is for you to keep. If you have any questions or would like to discuss the research further, please do not hesitate to contact a member of the research team.

Appendix 7 Staff Consent Form

STAFF CONSENT FORM

Title of project: How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

Researcher: **Rosie Kelly, PhD student, Ulster University**

I have read and understand the Information Sheet, and give my consent to participate in this research study, which has been explained to me by

_____

I understand that I am free to withdraw from the study at any time and this decision will not otherwise affect my employment at the Hospital.

NAME OF STAFF MEMBER: _____

(Please print)

SIGNATURE OF STAFF MEMBER:_____Date: _____

NAME OF RESEARCHER: _____

(Please print)

SIGNATURE OF RESEARCHER:_____Date: _____

Appendix 8 Information Poster

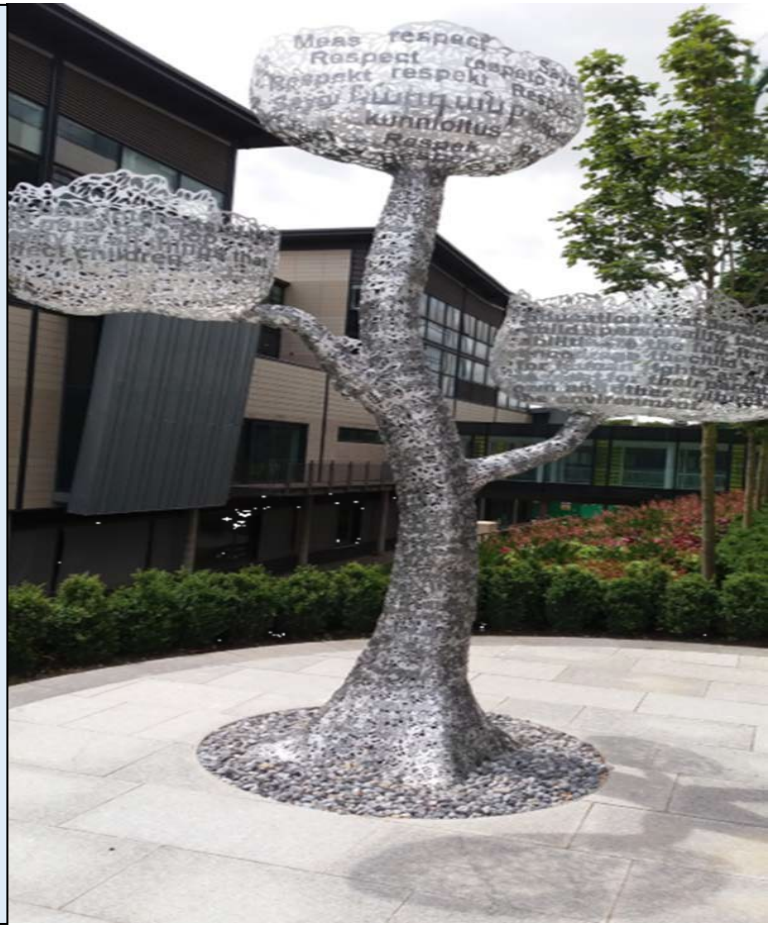
Your experience of care in the new Inpatient Ward Block at the Ulster Hospital

What is this about?

A PhD research student is going to explore what in-patients and staff think about the single-room design and the care in the new ward block.

We are interested in hearing about your experience.

The student will also be observing staff as they go about their work in the new wards. If you are interested in taking part, please talk to one of the ward staff who will put you in touch with the researcher.



Appendix 9 Patient Information Sheet

PATIENT INFORMATION SHEEET – OBSERVATIONS OF PRACTICE AND INTERVIEW

How does a single room environment influence the experience of person-centred practice in an acute-care setting?

Researcher: **Rosie Kelly, PhD student, Ulster University**

I am a nurse who is currently undertaking a research study as part of my PhD, with the Ulster University. I am inviting you to take part in a research study exploring how 100% single rooms influences the experience of person-centred practice in an acute care setting. Before you decide I would like you to understand why the research is being undertaken and what it would involve for you. Please take the time to read this information carefully and feel free to contact either myself (Rosie Kelly) or the Chief Investigator (Dr Donna Brown) about the study if this would help you to decide. Contact information is available at the end of this document.

What is the study about?

There is no evidence in the current literature that links the experience of Person-centred Practice for patients and staff to the single-room environment in an acute care setting. This study aims to address this gap in the knowledge base by exploring the influence of a 100% single-room acute-care environment on the experience of person-centred practice.

There are three objectives:

1.To explore, from the perspective of patients/families, the of care experiences within a single-room, acute hospital environment.

2.To explore, from the perspective of staff, the experiences of working within a single-room, acute hospital environment.

3.To determine the factors that influence the delivery of person-centred practice in a single-room, acute hospital environment.

Who can take part in the study?
Any patient in (ward) can take part in this study. Any carer/relative of an inpatient on (ward).

What will the study involve?
The study is in two parts. Firstly, I will be observing what takes place in your ward. The observation will take place in 2hour slots over a variety of days to cover 24 hours in total. I will not enter anyone's room if they have not consented to take part.

Following this, during the hospital stay, inpatients will be interviewed by the researcher if they wish. This will involve patients telling me their story about their inpatient experience while in hospital. Each interview will take place in the patient's room and will last no longer than 60 minutes. The interview will be tape recorded to allow the stories to be accurately recorded. I will also take some notes during the interview and we can look at these together at the end of the interview.

Do I have to take part?
Taking part is entirely voluntary. It is up to you to decide. If you choose not to take part this will be respected and will not affect your treatment or care in any way.

What are the benefits of taking part in the study?
There are no individual benefits to taking part in the study. The results may help to identify good care being delivered and areas where improvement is needed for the benefit of all patients.

What are the risks of taking part in the study?
There are no risks to participants taking part in this study. If you consent to take part in the interview and become upset, it will be stopped immediately. I will make sure an appropriate member of staff comes to look after you until you no longer feel upset.

What will happen to the information that is gathered?

If you consent to take part in this project, the information gathered with be treated with the strictest confidence. No names will be disclosed and no personal information will be traced back to you. However, if you disclose any information that concerns me as a nurse, I will have to discuss it with a senior

member of staff on the ward.

All identifiers will be removed during data analysis and prior to the publication of any reports or papers. All data will be held securely according to university guidelines as required under data protection legislation. Transcripts will be stored on computer in password protected folders and will be destroyed after ten years.

How will the results of the study be shared?

Following the study, a short report of the findings will be presented to Trust managers and ward staff including a final report to the Director of Nursing. The overall results from the research will be shared with professionals locally. Only anonymous results will be presented. A plain English summary will be made available in all wards in the new Block for all patients to read. The report will be available to study participants on request.

There will also be presentations and publications to other professionals in Northern Ireland, nationally and internationally. The findings from this research project will lead to further research or directly to improvements/changes in practice.

Other information

Please remember that participation in this project is voluntary and if you decide not to take part or decide to withdraw at any time this will not otherwise affect your treatment and care.

If you decide to withdraw from the study it will not be possible to remove the data collected previously as there will be no identifiable indicators.

Who has reviewed this study?

This project has been reviewed and approved by the Governance Filter Committee of the Institute of Nursing and Health Research, University of Ulster. It has also been approved through the Office for Research Ethics Committees Northern Ireland and the South Eastern Health and Social Care Trust Governance office. Should you require further details you can contact the University Chief Investigator (Donna Brown).

Contact information

If you have any questions about the conduct of this study, please do not hesitate to discuss them with:

Dr Donna Brown, Chief Investigator
Ulster University,
Shore Road Belfast BT37 0QB

Tel: 02890368512 **Email: d.brown1@ulster.ac.uk**

Rosie Kelly, PhD Student
Ulster University,
Shore Road Belfast BT37 0QB

Tel: 02890368255 **Email: Kelly-R55@email.ulster.ac.uk**

Christine Boomer, Clinical Collaborator
Home 3, Ulster Hospital
Dundonald, BT16 1RH

Tel 02890484511 Ext 2757 **Work mobile – 07730195187**
Email: christine.boomer@setrust.hscni.net

Professor Tanya McCance, Chief Investigator
Ulster University,
Shore Road Belfast BT37 0QB

Tel: 02890366450 **Email: tv.mccance@ulster.ac.uk**

Should you have a complaint about this research please contact

Nick Curry

Head of Research Governance,

Room 26A17

Ulster University,

Shore Road Belfast BT37 0QB

Tel: 02890366629 **Email: n.curry@ulster.ac.uk**

This Information Sheet is for you to keep along with a copy of your consent form. If you have any questions or would like to discuss the research further, please do not hesitate to contact a member of the research team.

Appendix 10 ORECNI Confirmation letter

HSC Business Services Organisation

Office for Research Ethics Committees Northern Ireland (ORECNI)

Customer Care & Performance Directorate
Unit 4, Lissue Industrial Estate West
Rathdown Walk
Moira Road
Lisburn
BT28 2RF
Tel: 028 95361400
www.orecni.hscni.net

Health and Social Care Research Ethics Committee A (HSC REC A)

21 December 2017

Dr Donna Brown
Ulster University
Shore Road,
Newtownabbey
BT37 0QB

Dear Dr Brown

Study title:	**How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?**
REC reference:	**17/NI/0226**
Protocol number:	**17/0086**
IRAS project ID:	**224670**

Thank you for your letter of 19th December 2017, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to make a request to postpone publication, please contact hra.studyregistration@nhs.net outlining the reasons for your request.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Management permission must be obtained from each host organisation prior to the start of the study at the site concerned.

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

17/NI/0226 Please quote this number on all correspondence

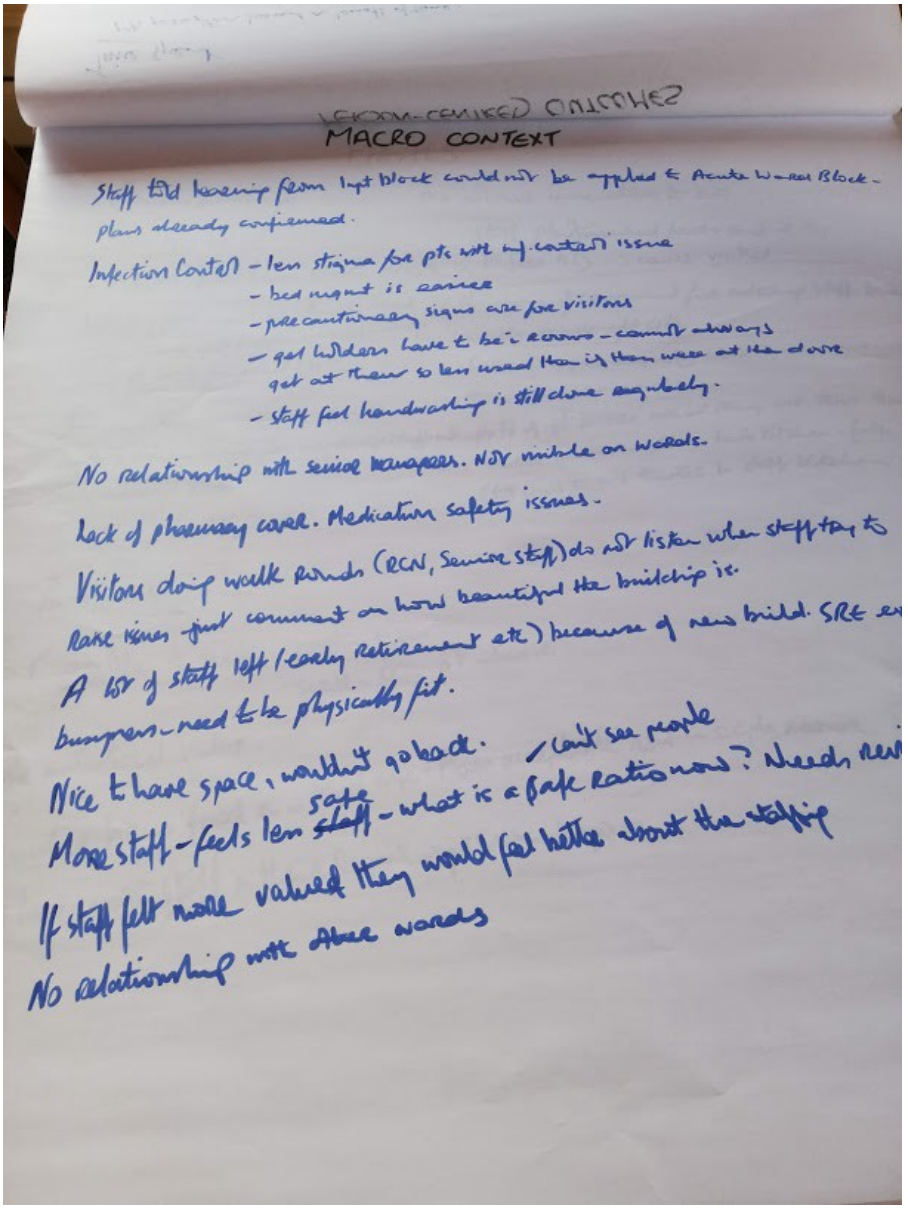
With the Committee's best wishes for the success of this project.

Yours sincerely

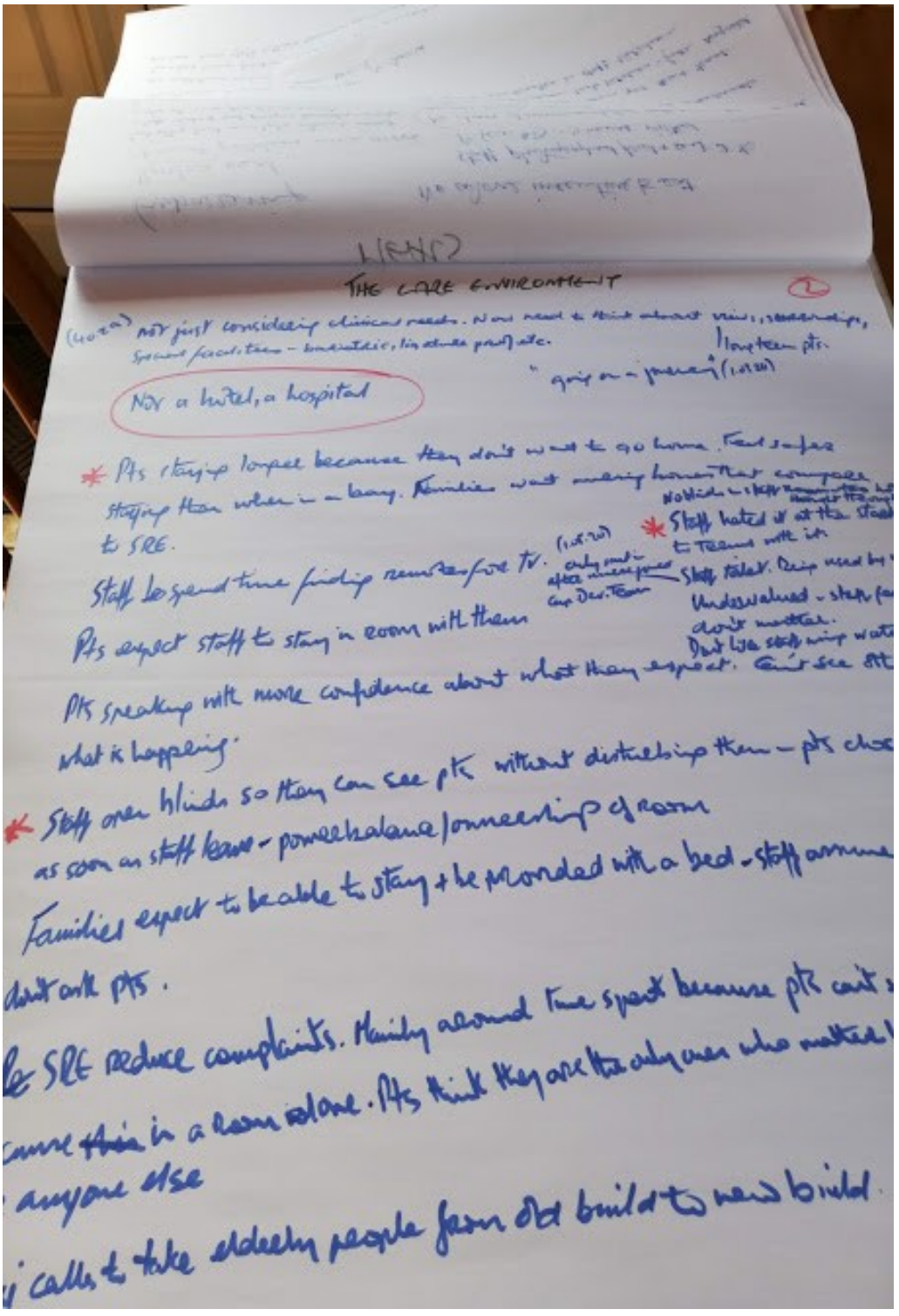
PP:
Chair Dr Catherine Hack

Email: RECA@hscni.net
Enclosures: "After ethical review – guidance for researchers" *[SL-AR2]*

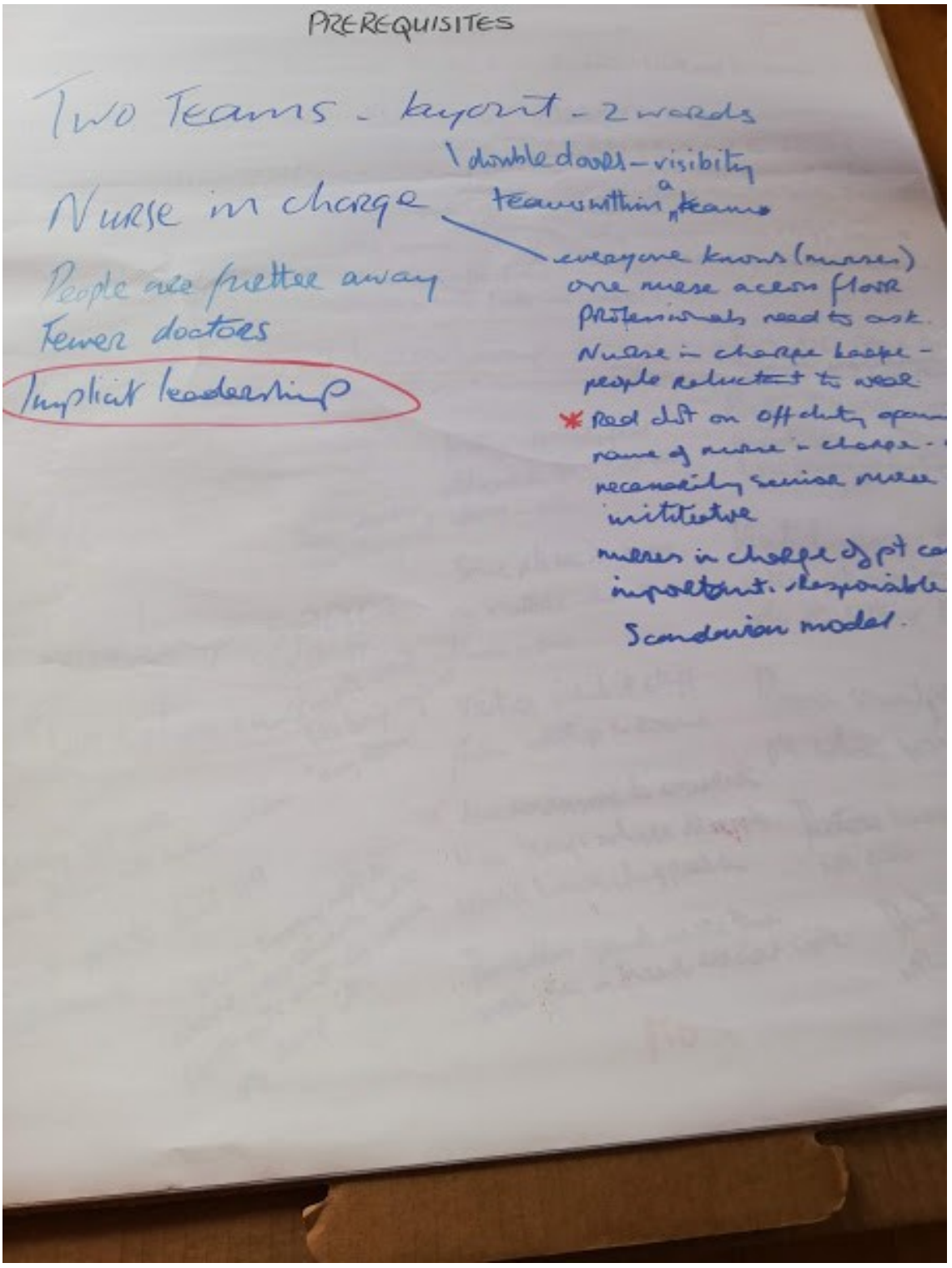
Appendix 11 Participatory Reflective Group Notes- Ward 2



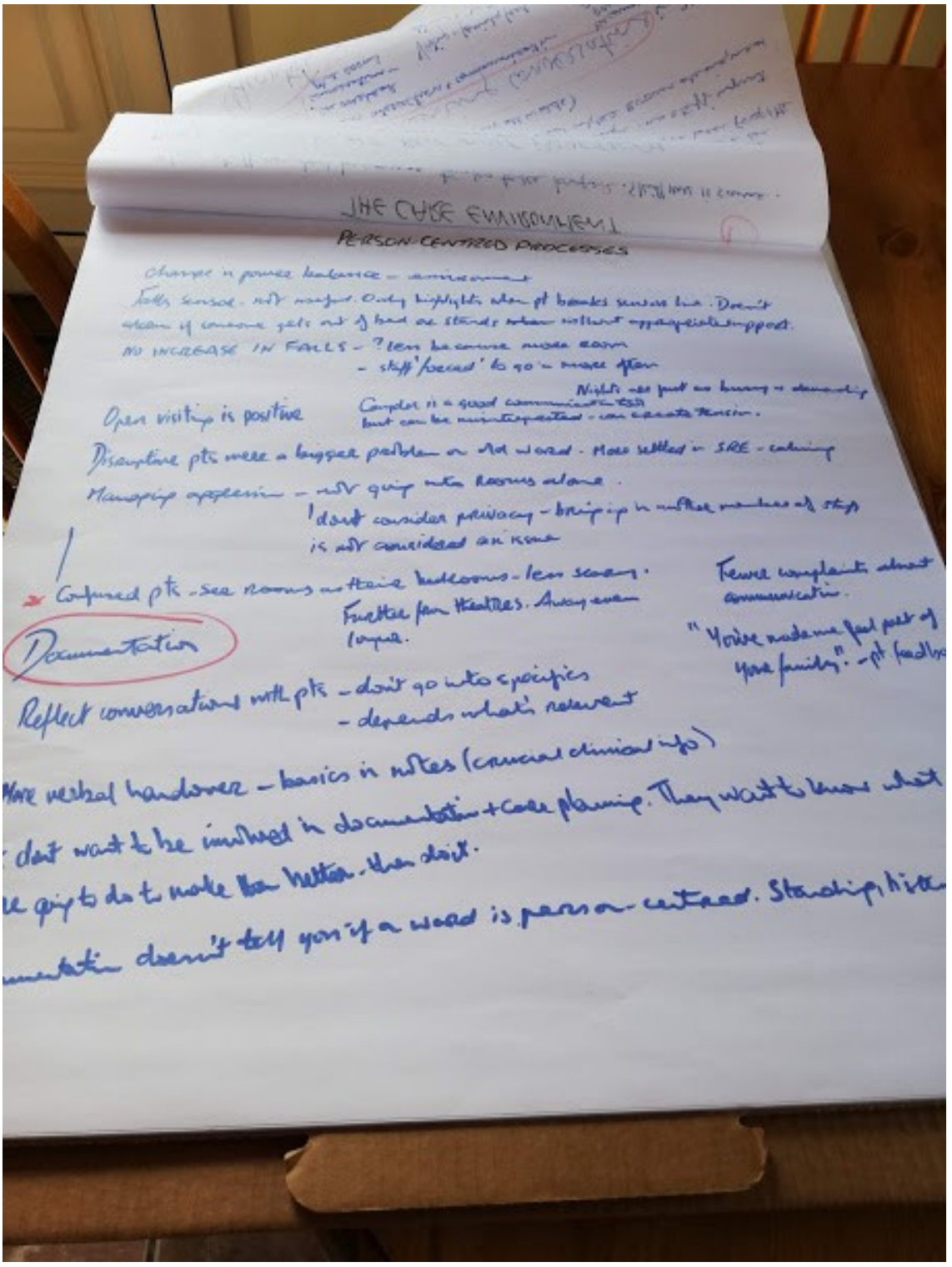
Appendix 11 Continued



Appendix 11 Continued



Appendix 11 Continued



Appendix 12 Interview Schedule for cognitive patients

Starting point	Main question ideas	Sample questions
Background details	Length of stay at time of interview Experience of inpatient stay	
Single-room environment	Dignity Rest Isolation	*How do you feel being looked after in this single room?* *What are the main things you notice about being in a room of your own?*
Person-centred Practice Framework-person-centred outcomes	Good care experience Involvement in care Feeling of well-being Communication	*Tell me what staff have been doing for you.* *What worries you most about being in hospital?* *What aspects of your care do you talk to staff about?* *How do staff involve you in the decisions about your care?*
Any other issues		*What do you think about the food?* *Is there anything I haven't asked you about in relation to being looked after in this new ward that you would like me to know about?*

Appendix 13 Sample of Interview Transcription

Patient: 2 Length of Interview: 29 minutes, 11 seconds

I = Interviewer
P = Patient

I So. ahem, I suppose I am just interested in knowing what you're experience has been like in the rooms you've been in on this ward first of all. Ahem, and I would just want you to describe to me first of all what you think about the rooms in general.

P You couldn't ask for anything more like than what you get. It's very, it's very contained, although an ensuite's not, it hasn't been much use to me until there lately being non-weight bearing, but now that I've started to recover you see the benefit of it just, you don't have to go anywhere to get washed or anything, you're just right, in through one door, your bed's here, tv in the wall. Pile of room for visitors that come up to see you like, they can pull a chair in, they can bring an extra chair in if there's more than a couple comes up and you're not claustrophobic, you've great, great space, and great, great light room round you, you know, it's light, it's airy, it's a healthy sort of atmosphere about the whole thing so there is like, whenever you are here.

I Yeah, and you've been in a few of the rooms round the ward?

P Just this one and the one opposite.

I Right.

P And at that time, I'm a farmer and I seen the green fields over this side of the hospital, and I said to one of the nurses one day, if one of them rooms across the way becomes available, I says, I would like to look over the green fields…

I Right.

P So, whenever one come available, they says right we've got a room on the other side for you, and just, just one Sunday, they wheeled me across like, so…

I Great.

P…once there was a room available, they knew I was a farmer and they said right, we've got, we've got a room looking over the green fields for you. They moved me across…

I Right.

P…probably meant more to me than anybody else…looking out…

I Aye.

P So then so, no I can't complain now about the rooms is fantastic.

I Ah, hah. What about, ahem, they have, they, well at some point after you came in they, they showed you the controls and everything and I know you've new controls for the bed but, ahem do you find it easy to manage the tv and the lights and the air conditioning and all that?

P Very easy. Blinds, lights everything's on this remote like…

I Ah, hah.
P It's very simple, and your button, to call the nurse if you need a nurse like… I

Aye.

P …but everything's very simple, to your hand like…

I Aye.

P…the bed controls, you can raise yourself up, you can lower yourself down, whatever you want to do and everything's very simple about it, like it's not, nothing's complicated to do.

I What do you think of the new beds?

P I think they are actually easier to lie on…

I Do you?

P I started on one of the old ones and changed to these here…

I Ah, hah.

P… I think they do seem to…take shape, or they do seem to, they do, they do be easier to lie on…

I Mmn, hmn.

P…slightly, although I wouldn't have said there was anything wrong with the other ones, I do…although I'm getting better all the time too, so maybe that's part of the thing, but yeah I did, at the time, for a few days think it was easier, but as time goes on then I'm out in the chair more and not spending just as much time in them but, ah, they are, at the time I did reckon that they were a better bed like.

I Mmn, hmn. Right. Ahem, and you were saying that you find the room…that you think the rooms are nice cos they're light and airy and there's plenty of natural light. Do you think there's anything about the décor that, if you had a choice you would do differently?

P Not really. You don't want…like you're not in a hotel. You're not needing, you're not needing nice pictures on the wall (laughs), you're ah, you're…it's simple, it's basic, it's light and it's airy and I don't, I don't…personally I wouldn't be into that sort of thing, décor, at all…

I…Right.

P I'm a farmer, I'm not into my surroundings. There's what my décor is there (pointing out the window) …

I That's what you want, the view?

P …out that window, out that window, the view like…

I Ah, hah.

P…that's décor to me…

I Right.

P …so it is. I'm not, I'm not wanting anything, sure. You start decorating something, it's not to everybody's taste then. Plain, simple and nice to look at, nice, clean and bright ah, nobody can say anything about it then. It's not…somebody comes in and doesn't like this or doesn't like that then they're gonna say I don't like that there. But if it's good and basic and easy to manage then easy to, if they want to repaint it then, sure everything's easy and simple to do that way whenever they do need a bit of a spruce up, whenever the time comes.

I Ah, hah. So do you think then actually having the windows is the most important thing.

P I think the light, natural lighting is a big thing…

I Mmn, hmn.

P…to make it something, to make it a healthy atmosphere when you're lying in here with loads of natural light coming in on you…

I Mmn, hmn.

P…is, is a big benefit now.

I Mmn, hmn.

P Although the shape of the hospital obviously, there's not many places is gonna have the possibility to have a view, a view like that there, like that there is a big bonus now, as far as that's concerned…

I Yeah.

P Natural light is, is what you'd be wanting like…

I Aye. And just going back to the controls, you were saying about, you know if you needed the nurses or whatever, ahem, do you have to wait a long time?

P Well I've never had to wait a long time…

I You've been alright?

P Anytime I've pushed, it's within a, sometimes within a few seconds, sometimes within a minute or two like.

I Right.

P It's never, it's never been a long wait with me. I suppose it just depends…

I Aye.

P …you could be unlucky that they're all away doing something at some stage, but I haven't had to wait any more than a minute or two.

I Right. You're obviously confined to bed to a large extent. Do you get out of the room at all?

P Now I'm getting mobilised. Yesterday or the day before was the first. I have a Zimmer there, and I'm able to hop on this (points to one leg). I got the plaster cast off this leg and I'm able to weight bear on it so I can stand

Appendix 14 Interview Schedule for cognitively impaired patients

Starting Point	Main question ideas	Sample questions
Background details	Length of stay at time of interview Previous experience of in- patient stay	
Single -room environment	Privacy Dignity Rest Isolation	*Do you get worried being alone in this room?* *What are the main things you notice about being in a room of your own?* *Do you have family who visit?* *Do you ever leave the room?*
PcP Framework – person-centred outcomes	Good care experience Involvement in care Feeling of well-being Existence of a healthful culture Communication	*Tell me what staff have been doing for you.* *Do you get enough to eat and drink?* *What worries you most about being in hospital?*
Any other issues	Meals	*What do you think of the food?*

Appendix 15 Patient Consent Form

Patient Consent Form – Observations of Practice and Interview

Title of project: How does a 100% single-room environment influence the experience of person-centred practice in an acute-care setting?

Researcher: **Rosie Kelly, PhD student, Ulster University**

I have read and understand the Information Sheet relating to both parts of this study, and give my consent to participate in this research study, which has been explained to me by

_____

I understand that my interview will be recorded ☐

I understand that I am free to withdraw from the study at any time and this decision will not otherwise affect my treatment at the Hospital. ☐

NAME OF PATIENT: _____

(Please print)

SIGNATURE OF PATIENT:_____Date: _____

NAME OF RESEARCHER: _____

(Please print)

SIGNATURE OF RESEARCHER:_____Date: _____

NAME OF INTERPRETER: _____

(Please print)

SIGNATURE OF INTERPRETER:_____Date: _____

Appendix 16 Non-verbal Patient Consent Form

VERBAL OR NON - VERBAL CONSENT FORM

Title of project: How does a 100% single-room environment influence the experience of person-centred practice in an acute- care setting?

Researcher: **Rosie Kelly, PhD student, Ulster University**

Both parts of the study relating to the Observations of Practice and the interview have been explained to_____(patient's name)

I confirm that the patient has indicated his/her willingness to participate in both parts of the study. ☐

I confirm that the patient has indicated his/her understanding that the interview will be recorded. ☐

NAME OF FAMILY MEMBER:_____
(Please print)

RELATIONSHIP TO PATIENT:_____

SIGNATURE: _____

Date: _____

NAME OF STAFF MEMBER:_____
(Please print)

POSITION:_____

SIGNATURE:_____

Date:_____

Appendix 17 Family/Carer Consent Form

Family member/Carer Consent Form – Interview

Title of project: How does a 100% single-room environment influence the experience of person-centred practice in an acute- care setting?

Researcher: **Rosie Kelly, PhD student, Ulster University**

I have read and understand the Information Sheet, and give my consent to participate in this research study on behalf of

_____

The study has been explained to me by

_____

I understand that this interview will be recorded ☐

I understand that I am free to withdraw from the study at any time. ☐

NAME OF FAMILY MEMBER:

_____

SIGNATURE OF FAMILY MEMBER: _____
Date: _____

RELATIONSHIP TO PATIENT: _____

NAME OF RESEARCHER: _____
(Please print)

SIGNATURE OF RESEARCHER: _____

Date: _____

NAME OF INTERPRETER: _____
(Please print)

SIGNATURE OF INTERPRETER:_____
Date: _____

Appendix 18 Memo 1

MEMO 1

A patient was being 'specialled' after surgery. The nurse did not sit in the room, but at the staff base opposite. The door to the room was open as were the blinds. The nurse went in to check how the patient was feeling and to do mouth care because the patient was nil by mouth. The physio arrived and tried to encourage the patient to get out of bed, but he refused. The physio asked the nurse to help persuade the patient to get up. Again, the patient refused saying he was tired because he had been unable to sleep all night. He said the ward was noisy and staff refused to close the door. A more senior nurse suggested closing the door but keeping the blind open so the patient could be seen. The nurse looking after him had to move her position at the staff base so the patient was visible. The patient then fell asleep for 30 minutes, woke up and requested to be helped out of bed into a chair. **(OoP0103, Pg16)**

Appendix 19 Autonomy

A patient's condition was deteriorating. Several unsuccessful attempts were made to contact medical staff. The senior nurse on the shift then contacted the Bed Manager (a senior nurse specialist). Together they reviewed the patient, made decisions about actions to be taken, took blood samples and started oxygen therapy. At this point a doctor arrived and concurred with the actions taken **(OoP0106, Pg16)**.

Very late in the evening, a patient was waiting to be discharged and another patient had arrived to be admitted. The patient for discharge could not leave as a prescription for laxatives was required. The patient waited for two hours, which also delayed the patient waiting to be admitted. The room, including the ensuite had to be cleaned and restocked before the new patient could be admitted, which now takes longer than when previously preparing a bed space on the multibedded bays **(OoP0109, Pg14).**

Appendix 20 Memo 2

The older lady is a frequent admission to hospital but not to this ward. The admitting nurse notes she has bruising on her body. On reading the ED notes it appears she was involved in an accident. This information had not been passed onto the ward staff. She remains agitated all night, refusing to go to bed and refusing to stay in her room, saying she is frightened. She also refuses to take the sedative that had been prescribed for her. Nursing staff have tried contacting medical staff several times without success to get IM medication prescribed. Staff have to take turns watching her as she goes into other patients' rooms or tries to get dressed to leave the ward. One nurse gets a bit impatient with her and speaks in quite a loud, irritated tone to the patient about going to bed. The patient asks the nurse not to shout at her and the nurse replies that she is not shouting, then walks away. Another nurse persuades her to sit at the staff base with the staff. They make her a cup of tea and talk to her about her family etc. Eventually all the staff have to go about their duties and the patient also gets up and wanders off. She goes into the linen cupboard where she is found by a NA. She approaches the patient gently and speaks quietly to her. She asks the patient if she would like a towel to have a wash. The patient answers "yes." The NA gives her a towel then walks her back to her room and helps her organise her toiletries in preparation for a shower. The NA stays with her, talking quietly and eventually persuades her to take the oral sedative at 0325pm, and then helps the patient to get into bed where she falls asleep. **(OoP 0206b, Pg14).**

Appendix 21 Memo 3

A nurse spends time with a confused, anxious older lady. She speaks quietly and reassuringly to her. Helps her to reposition herself in the bed so she can see out the window. The nurse had asked the kitchen aide to put some tea in a sippa-cup and she makes sure the patient can reach it on the table. When the nurse leaves the room, the patient gets out of bed and calls out. The nurse goes back in and helps the patient into the bathroom. A NA also goes in at this point, closes the door and pulls down the blinds. When they leave the room, the patient is back in bed. Shortly after, the patient gets out of bed and calls out again. Another nurse goes in and sits down with the patient, talking to her and trying to orientate her to where she is. Reassures the patient that her family will be in to visit. Asks the patient if she wants to get back into bed but the patient declines. The nurse helps her to get comfortable in the chair and tries to distract her with a local magazine. The patient speaks at length but it is not related to anything the nurse has said. The patient then asks to go for a walk, but having taken a few steps, wants to sit down again. She becomes very agitated as she tries to sit down. The nurse continues to speak calmly and reassuringly to her. Another nurse goes in to help the patient sit down safely again. This nurse finds a book the patient is asking for and helps her put her glasses on. The nurses then leave the room. Shortly after, the patient calls out again and says she wants to get back into bed. However, when another nurse goes in and tries to help her, she starts to scream, saying she is going to fall. The nurse helps her to sit down again on the chair. The nurse turns the chair round so the patient can see out the door to the staff base opposite. The nurse then goes back to the staff base where she is working on a computer. She constantly calls out to the patient so the patient can see and hear her. The patient settles for a little while then gets up out of the chair and attempts to climb back into bed. The nurse goes back into the room and helps the patient back into bed **(OoP0301, Pg18).**

Citation	Methods	Results	EPHPP Assessment	CASP Assessment
A Bradley, S. & Mott, S. (2013) https://doi.org/10.1111/jocn.12403 (Australian study)	Mixed methods	Patients preferred the bedside handover and staff believed the bedside handover increased patient involvement in their care.	Weak	
Knight, S. and Singh, I. (2016) https://doi.org/10.1016/j.jcgg.2016.03.02 (UK study)	Quantitative study using inpatient falls data. Data analysis used SPSS.	More patients in single rooms fell than those in multi-bedded bays. No significant difference in the type of injury sustained. Mean LoS for patients who had recurrent falls in single rooms ↑	Weak	
Maben, J. *et al.* (2015) https://doi.org/10.3310/hsdr03030 (UK study)	Mixed-methods study to inform a pre-/post-'move' comparison within a single hospital,	No difference in patient safety measures. Staff identified lack of flexibility in the design. Patients identified 4 themes: comfort; control; connection; isolation.	Weak	Clear statement of aims and findings Appropriate research design Researcher/participants relationship not detailed

Citation	Methods	Results	EPHPP Assessment	CASP Assessment
Nahas, S. *et al.* (2016) https://doi.org/10.1002/msc.1110 (UK study)	Questionnaires were completed on each site.	The single-room DGH had significantly better satisfaction in areas of cleanliness, privacy, pain management and feelings of security. Significantly more patient contact on the open ward. There was no significant difference in feelings of isolation, loneliness or overall satisfaction between the two sites.		Clear statement of aims and findings Questionnaires used. Might have obtained more detailed information from interviews Researcher/participants relationship not detailed
Okeke, I. *et al*. (2014) https://doi.org/10.1093/ageing/afu124 (UK study)	Retrospective audit of in-patient data on documented falls and associated injury from 2 sites over 18 months each.	Statistically significant increased incidence of falls and fracture in 100% single-occupancy hospital design compared to mixed single and multi-bed facility.	Weak	
Persson, E. *et al.* (2015) https://doi.org/10.1111/scs.12168 (Swedish study)	Patient interviews analysed using van Manen's four life-world existentials approach	Creating a personal environment. The need for company and security Time as unpredictable and involving waiting Focus on healing the body		Clear statement of aims and findings Appropriate research design Researcher/participants relationship not detailed Thorough explanation of analysis methodology

Citation	Research Methods	Results	EPHPP Assessment	CASP Assessment
Preston, J.C. and Maskell, P. (2014) https://doi.org/10.1093/ageing/afu044 (UK study)	Postal questionnaire pre and post move to single-room accommodation.	Patients under 80 years of age preferred single rooms patients over 80 years of age preferred shared accommodation.		Very short summary of study Postal questionnaire used Clear statement of aims and findings
Reid, J. *et al.* (2015) https://doi.org/10.1093/ageing/afu158 (UK study)	Survey carried out in 2008 and 2013.	In 2008, 37.2% of patients expressed a preference for single-room accommodation. In 2013, the figure was 84.8%.		Clear statement of aims and findings Researcher/participants relationship not detailed Survey questions were very specific. Additional information was discussed but given less weight.
Singh, I. and Okeke, J. (2016a) Doi: 10.1136/bmjquality.u210921.w4741 (UK study)	PDSA methodology	Review of falls data Introduction of the Falls Risk Assessment Re-audit of falls Introduction of a nurses training programme. Re-audit of falls data		Quality improvement study of falls assessment and training intervention Study designed and carried out by senior nursing and medical staff in the area A cost benefit analysis is reported but several factors have not been costed

Citation	Research Methods	Results	EPHPP Assessment	CASP Assessment
Singh, I. *et al*. (2016b) https://www.researchgate.net/publication/304495269 (UK study)	Semi-structured interviews. Validated scales for Anxiety and Loneliness as in-patients and in the community before admission to the hospital.	Patients admitted to single-rooms reported significantly higher loneliness as compared to MB-W. Loneliness increased significantly following the admission to single room as compared to the preadmission level		Clear statement of aims and findings Appropriate research design Researcher/participants relationship not detailed
Tan, M. *et al*. (2013) https://doi.org/10.1136/postgradmedj.2012-131296 (USA study)	PDSA methodology	Whiteboards helped with communication, patients' awareness of their medical team, admission plans and generally improved patient satisfaction		Surveys with patients, families and staff on wards with and without whiteboards Researcher/participants relationship not detailed Nurses were not asked for their opinions. It is not clear why this study focused on medical staff
Timmermann, C. *et al*. (2015) https://doi.org/10.1111/scs.12145 (Danish study)	Semi-structured interviews combined with observations of the physical environment at an acute hospital. Ricoeur's theory of interpretation used in the data analysis.	Experiencing inner peace and an escape from negative thoughts Experiencing a positive mood and hope Experiencing good memories.		Clear statement of aims and findings Appropriate research design Researcher/participants relationship not detailed Thorough explanation of analysis methodology

Appendix 23 Literature Review Table 2

Citation	Methods	Results
Anäker, A. *et al.* (2019) https://doi.org/10.1177/1937586718806696 (Swedish study)	Semi-structured interviews with 16 participants. Interviews were analysed using content analysis.	Two main themes: Incongruence exists between community and privacy connectedness with the outside world provides distraction and a sense of normality.
Anäker, A. *et al.* (2017) https://doi.org/10.1371/journal.pone.0177477 (Swedish study)	An explorative case study with a total of 59 patients. Data was derived via a behavioural mapping technique. Each participant was observed over one weekday. The data was analysed using SPSS.	The findings relating to the SRE were: Participants spent most of the day in their rooms. Participants were on their own for 83% of the day. Participants engagement with low or no activities increased in the SRE.
Bliefnick, J.M. *et al.* (2019) https://doi.org/10.1121/1.5090493 (US study)	24h sound level meter measurements collected in 15 patient rooms and 5 nursing stations. Results correlated with HCAHPS results on quietness of hospital environment for 2016.	Noise levels were rated as marginal or poor. There was some correlation between sound levels and patients' satisfaction responses but further research is advised. Single rooms have lower average acoustic measurements than multioccupancy rooms.
Boylan M.R. *et al*. (2019) https://doi.org/10.1016/j.arth.2018.11.033 (US study)	Comparison of HCAHPS scores from 30 patients with adjusted regression model odds ratios.	SRE patients reported higher scores for call button help, quietness and overall hospital rating.
Campos Andrade, C. *et al.* (2017) http://dx.doi.org/10.1016/j.jenvp.2017.06.008 (US & Portuguese study)	Multisite field study using patient questionnaire from 187 patients and objective measurement of desirable design features.	The greater number of favourable design feature the less the patients' stress. The relative importance of these dimensions may differ between cultures.
Donetto, S. *et al.* (2017) http://dx.doi.org/10.1016/j.healthplace.2017.05.001 (UK study)	Secondary analysis of 25 interviews with nursing staff originally collected for major study (Maben et al 2015)	3 key dimensions identified: Nursing work and the senses: seeing and hearing patients Being aware of colleagues' presence and workload: teamwork and mutual support Being seen and heard by patients: invisible nursing work

Citation	Methods	Results
Evans, K. D. *et al.* (2018) https://doi.org/10.1177/8756479318776219 (US study)	Multi-phase study: Phase 1 Focus groups and interviews Phase 2 design of mock hospital room Phase 3 evaluation session by stakeholders	Room for equipment and access to patient. Presence of family and visitors during imaging. Imaging at the bedside requires re-evaluation of room configuration and components.
Fay, L. *et al.* (2017) https://doi.org/10.1177/1937586717698812 (US study)	Mixed methods study including pedometer measurement; room usage data; time studies and staff questionnaire (Same study as Real et al 2018)	No real difference in walking distances. Less time spent at stations and more time spent with patients in new environment. 67% increase in visits to patients' rooms. Visibility depended on where the staff sat. Staff approved of the new environment. Mixed reviews on visibility; walking burden; teamwork; room usage and staff satisfaction.
Kitchens, J. L. *et al.* (2018) https://doi.org/10.1111/jonm.12618 (US study)	Qualitative descriptive study using purposive sampling, semi-structured interviews with patients and family members and low inference content analysis.	18 patients participated. 3 content areas of patient experience emerged: feeling safe; perceiving continuity of care; valuing family.
Klemets, J. and Evjemo, T.E. (2017) https://doi.org/10.1097/CIN.0000000000000331 (Norwegian study)	Part of a 4year case study. Observations; Staff focus groups; semi-structured interviews with nurses. Data analysis used a stepwise deductive-inductive approach.	Three categories of nurse willingness to respond were identified: Administrative work, or lunch break. Assisting a patient with personal hygiene. Aspects of clinical practice.
MacAllister, L. *et al.* (2019) https://doi.org/10.1177/1937586718782163 (US study)	A retrospective exploratory study examining two types of patient satisfaction surveys. SPSS was used to analysis the data.	Statistically significant relationships were found between: distance from the nurses' station and patient satisfaction; room handedness and patient satisfaction; location of the bed; location of the first encounter.
Real, K. *et al.* (2018) https://doi.org/10.1177/1937586718763794 (US study)	Mixed methods, before and after, quasi-experimental study. (Same study as Fay et al 2017)	Patients preferred the de-centralised design. Staff had mixed feelings but were generally more positive about the centralised design.

Citation	Methods	Results
Snyder, H.J. and Fletcher, K.E. (2019 in press) https://doi.org/10.1177/2374373519843056 (US study)	Qualitative data collection and Grounded theory data analysis.	4 themes: hospital environment; patient factors; hospital personnel; patient feelings.
Young, C. *et al.* (2017) https://doi.org/10.3390/geriatrics2010004 (UK study)	A prospective observation study in 2 hospitals: 1- 100% SRE; 1 -multioccupancy	LoS significantly longer for pts in SRE. No significant difference in falls, readmission or mortality

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